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Comcast Cable 508 D S Van Dorn Street Alexandria, VA 22304 Office: 703.567.4600 Fax: 703.567.4444 www.comcast.com

August 30, 2007

Ms. Rose Williams Boyd Director Office of Citizen Assistance City of Alexandria 301 King Street Room 1900 Alexandria, Virginia 22314

Dear Ms. Boyd,

Comcast is pleased to submit our 2007 Annual Report to the City of Alexandria, in accordance with Chapter 3 of Title 9 of the Alexandria City Code. Included are copies or summaries of the Year's Activities within Local Origination and Community Programming, a Summary of Customer Complaints, Financial Reports, Statements of Major Equipment and Capital Expenditures, Construction Plans, a list of Comcast Officers and Board of Directors, the Alexandria Employee Report, Television Channel Changes, Customer Opinion Survey, the Plant Report, and Customer Service Telephone Statistics for the period of July 1, 2006 through June 30, 2007.

It's been another exciting year at Comcast! We continue to launch new channels and services to the residents of Alexandria, like CN8, MASN, WDCW The Tube, FearNet, and a series of MHz channels. We've also added more HD channels with Universal HD, CN8, and National Geographic expanding the HD line-up. VodLink, an interactive port, adds convenience to the customer's tool of resources, by giving them the ability to a main menu to choose TV listings, and Video on Demand.

We've also added monitoring equipment to all our nodes, which gives us the ability to identify to identify potential problems and implement corrective action before they become customer impacting. It also gives us the ability to isolate outages and dispatch repairs crews in advance of being contacted by customers.

The Headend completed the deployment of ADS, digital simulcasting of the channels, when they moved the broadcast channels over to digital. Customers with digital converter boxes receive the signal digitally; customers without boxes receive the original analog signal. This positions us well for the conversion to all digital in February of 2009.

We have seen a significant increase in customers taking advantage of the wide array of products and services we offer. Comcast plans to continue its investment in the City bringing the latest programming and cutting edge technology to the community. As a

result of capacity management, we recently split several of the nodes in Alexandria to ensure high speeds to the Internet service and Video On Demand Services. Comcast had been trialing wireless technology in several locations in the country, in anticipation of launching the quadruple play through our partnership with Sprint/Nextel. We hope to launch in Alexandria during 2008.

Community highlights from the past year are:

- Corporate sponsor of the Alexandria Waterfront Festival, benefiting the American Red Cross.
- We continue to conduct Newsmaker interviews aired on Headline News to promote nonprofits, and community activities and events.
- Partnered with the City of Alexandria for the fourth annual Comcast Outdoor Film Festival at Ben Brenman Park.
- Corporate sponsor of the Alexandria Chamber of Commerce, supporting Chamber events.
- Sponsored the Alexandria Scholarship Fund Telethon, which raised over \$100,000 for T.C. Williams Graduates.

Comcast and its employees pride themselves with being involved with the Community, and being in the forefront within the Company to deploy new services and technologies to our customers. We look forward to continuing this partnership in 2008.

Yours sincerely,

Mapin

Marie Schuler Director of Government and Community Affairs



### **2007 ANNUAL REPORT**

YEAR'S ACTIVITIES SUMMARY Local Origination and Community Programming Service to the Community AUGUST 30, 2007

#### YEAR'S ACTIVITY SUMMARY Local Origination and Community Programming Service to the Community

- Supported the Department of Human Services with their Foster Care program.
- Supported the Alexandria Technology Awards
- Supported the Alexandria Volunteer Bureau An Evening in the Heart of Alexandria Gala
- Provided Cable in the Classroom magazines in conjunction with the CIC program to Alexandria Public Schools
- Corporate Sponsor of the Alexandria Chamber of Commerce
- Awarded a Comcast scholarship to a T.C. Williams graduate pursuing film studies at the Scholarship Fund of Alexandria Awards Ceremony
- Filmed and participated in the USA/Alexandria Birthday Celebration at Founders Park
- Filmed and participated in the American Indian Festival, the African American Festival, the Italian Festival, the Irish Festival the Chirlagua Festival, and the Cambodian Festival.
- Promoted summer concerts throughout the area, Lunch Bunch Concerts, Ben Brenman Park Concert, Ft Ward Park Concerts, Waterfront Park Concerts, Montgomery Park Concerts, Henderson Park Concerts, and the King Street Gardens Concert.
- Sponsored the Alexandria Volunteer Bureau Philanthropy Summit Awards
- Donated to the T.C. Williams Drug and Alcohol Free Graduation Party
- Participated in the United Way campaign
- Supported the Alexandria Chamber of Commerce "Total Resource" Campaign
- Participated with the Region in Comcast Cares Day at Fred Lynn Middle School in Prince William County. We landscaped the front entrance, back entrance, and courtyards.
- Conducted a tour of Wheeler Avenue facility for the Federal Communications Commission and the United States Telecommunications Training Institute; the class was made up of communications experts in government from around the world.
- Corporate sponsor of the Alexandria Waterfront Festival
- Live coverage of the Alexandria Special Election Returns
- Supported the Breast Cancer Walk, taped and broadcast the event
- Partnered with the City of Alexandria for the Comcast Outdoor Film Festival
- Supported the Alexandria Education Partnership

- Taped and broadcast Agenda Alexandria monthly
- Taped and broadcast the Alexandria Chamber Business Leader of the Year Award
- Taped and broadcast the Grace Episcopal Concert
- Taped and broadcast & Supported the Alexandria Chamber of Commerce Chairman's Gala
- Taped and broadcast the Martin Luther King Birthday Ceremony for City employees
- Taped and broadcast the St Patrick's Day Parade
- Taped and broadcast the George Washington Day Parade
- Taped and broadcast the Martin Luther King Birthday Ceremony
- Taped and broadcast the Alexandria Birthday Celebration
- Supported, taped and broadcast the State of the City Address
- Taped and broadcast the Salute to Women Awards
- Taped and broadcast the Valor Awards
- Taped and broadcast the Episcopal Graduation
- Taped and broadcast the Bishop Ireton Graduation
- Taped and broadcast the T.C. Williams Graduation
- Taped and broadcast the Scholarship Awards Ceremony
- Taped and broadcast the St. Stephens /St. Agnes Graduation
- Taped and Broadcast the Scottish Christmas Walk
- Taped and Broadcast the Scottish Night at Ft. Ward Park
- Broadcast the Latter Day Saints Annual Conference
- Taped and Broadcast the Days of Remembrance
- Taped and Broadcast the Scottish Heritage Festival
- Taped and Broadcast the Technology Achievement Awards
- Taped and Broadcast the Christmas Tree Lighting Ceremony
- Taped and Broadcast the Excellence in Education Awards
- Taped and Broadcast the T.C. Williams vs. W. Springfield Boys Basketball Game
- Taped and Broadcast the T.C. Williams vs. W. Potomac Boys Basketball Game
- Taped and Broadcast the Grace Episcopal Spring Program
- Taped and Broadcast the CTE Awards Program
- Taped and Broadcast Monthly Program for Mayor of City of Alexandria
- Taped and Broadcast Monthly Program for Chamber of Commerce
- Taped and Broadcast Monthly Program for Fire Department
- Taped and Broadcast Monthly Program for Alexandria Library
- Taped and Broadcast Monthly Program for Alexandria Education Partnership
- Taped and Broadcast Monthly Program for Alexandria Civic Associations
- Taped and Broadcast Monthly Program for Alexandria Senior Citizens
- Taped and Broadcast Monthly Program for Hoop Academy International
- Supported the NAACP Awards Banquet
- Supported the Northern Virginia Urban League Gala
- Participated in the City of Alexandria Softball Program
- Sponsored the Alexandria Scholarship Fund Telethon through in kind work planning and broadcasting live and on replay the telethon event. This year's telethon raised over \$100,000.

• Sponsored the Training of Hoop Academy International Students in Field Production and Studio Class

Produced Comcast Local Edition interviews, appearing on Headline News for the following organizations:

City of Alexandria Recreation, Parks & Cultural Activities Alexandria Chapter of the American Red Cross Inova Blood Alexandria Convention & Visitors Center Office on Women - Domestic Violence Office on Women - Walk to Fight Breast Cancer Office on Women - Sexual Assault Awareness Month Office on Women - Salute to Women Awards The Scholarship Fund of Alexandria Telethon SOC Enterprises - promotes independence for people with disabilities Northern Virginia Aids Ministry Alexandria Chamber of Commerce Irish Festival St. Patrick's Day Parade Alexandria Commission for the Arts Alexandria Outdoor Film Festival The Campagna Center Alexandria Waterfront Festival The Twig – Tour of Homes Alexandria Symphony Orchestra First Night Alexandria Samaritan Ministry of Greater Washington Pentagon Memorial Fund Agenda Alexandria Carpenter's Shelter National MS Society Vola Lawson Animal Shelter Alzheimer's Association Mother's Against Drunk Drivers Child & Family Network Center Northern Virginia Family Services Armenian Festival Girl Scout Council The Art League **SCAN** CrisisLink **Azalea** Charities Avon Walk to Fight Breast Cancer

Alexandria Technology Achievement Awards Lupus Foundation of Greater Washington Alexandria United Way Alexandria Symphony Ball The Carlyle House Northern Virginia Urban League Alexandria Animal Welfare League The Torpedo Factory Opera Theater of Northern Virginia Senior Services Alexandria Volunteer Bureau Ummah Endowment fund Live on Wilson Plaza Pan Am Games for the Deaf Youth Employer Support of the Guard and Reserve America's 400<sup>th</sup> Anniversary Alexandria Convention and Visitors Center National Museum of Marine Corp Cable in the Classroom Leaders in Learning Awards Arlington National Cemetery **Community Lodgings** First and Second Thursday in Del Ray Capital Hospice Boys & Girls Club of Greater Washington Metro Stage Coats for Kids National Network to End Domestic Violence The Leukemia & Lymphoma Society Gila's Club of Greater Washington United States Hispanic Chamber of Commerce Bladder Cancer Advocacy Network National Puerto Rican Coalition Cure Autism Now Northern Virginia Regional Park Authority Cold War Museum Parent Leadership Institute of Alexandria AARP Friends of the Occoquan Northern Virginia Regional Center UMFS League of United Latin American 06 Metro Area Toys for Tots Virginia Department of Transportation Senate of Virginia Gala Hispanic Theatre **Hopkins** House **Community Residences** 

Alexandria Black History Museum Ballyshaners National Ms Society American Diabetes Association Smithsonian Virginia Gang Investigators Association National Cherry Blossom Festival Colon Cancer Foundation Metropolitan Washington Council of Governments Y-Me, Breast Cancer Support Organization Yockadot Poetics Theatre Project Historic Alexandria Foundation Arlington-Alexandria Coalition for the Homeless National Center for Black Philanthropy Special Olympics VA Cultural Foundation for Children Virginia Department of the Deaf and Hard of Hearing Hispanic Federation Gala 2007 RC



## **2007 ANNUAL REPORT**

#### FINANCIAL REPORTS AUDITED GROSS RECEIPTS LETTER TO THE SHAREHOLDERS 10-K

AUGUST 30, 2007

#### COMCAST OF VIRGINIA, INC. ALEXANDRIA BALANCE SHEET DECEMBER 31, 2006 (UNAUDITED)

#### <u>ASSETS</u>

CURRENT ASSETS	
Cash	\$ 46,125
Accounts receivable, less allowance for	
doubtful accounts of \$317,605	1,031,090
Other current assets	 228,436
Total current assets	1,305,651
PROPERTY AND EQUIPMENT	117,581,213
Less accumulated depreciation	(75,359,601)
	42,221,612
INTANGIBLE ASSETS	422 000 692
Less accumulated amortization	133,800,682
	 <u>(3,271,614)</u> 130,529,068
	 130,323,000
	\$ 174,056,331
LIABILITIES AND SYSTEM DEFICIENCY	
CURRENT LIABILITIES Accounts payable and accrued expenses Subscriber advance payments Due to affiliates	\$ 3,310,469 323,482 168,511,592
Accounts payable and accrued expenses Subscriber advance payments	\$ 323,482
Accounts payable and accrued expenses Subscriber advance payments Due to affiliates	\$ 323,482 168,511,592
Accounts payable and accrued expenses Subscriber advance payments Due to affiliates Total current liabilities	\$ 323,482 168,511,592 172,145,543
Accounts payable and accrued expenses Subscriber advance payments Due to affiliates Total current liabilities NOTE PAYABLE	\$ 323,482 168,511,592 172,145,543 9,020,582

#### COMCAST OF VIRGINIA, INC. ALEXANDRIA STATEMENT OF OPERATIONS AND SYSTEM DEFICIENCY YEAR ENDED DECEMBER 31,2006 (UNAUDITED)

REVENUES	\$	59,353,791
COSTS AND EXPENSES Operating Selling, general and administrative Depreciation and amortization		18,389,928 15,696,806 12,786,364 46,873,098
OPERATING INCOME		12,480,693
INTEREST EXPENSE, net		1,144,876
NET INCOME		11,335,817
SYSTEM DEFICIENCY, BEGINNING OF YEAR		(19,888,969)
SYSTEM DEFICIENCY, END OF YEAR	<u> </u>	(8,553,152)



### **2007 ANNUAL REPORT**

## SUMMARY OF CUSTOMER COMPLAINTS AUGUST 30, 2007

#### Summary of Complaints July 1, 2006 – June 30, 2007 City of Alexandria, Virginia

- Complaint: Property Management at Harbor Terrace complained about a pedestal being buried beneath the ground with cable wires exposed above ground and wanted the issues resolved.
   Resolution: Our Maintenance team and construction team were dispatched to replace the pedestal and bury all lines.
- 2. **Complaint**: Customer complained that he was not receiving the services that he paid for and had terminated service due to moving out of the area but was seeking additional credits on his account.

**Resolution**: Advised the customer that we applied a total of \$424.94 to his account and was satisfied with the resolution.

 Complaint: Customer complained that channels 2-5 were "freezing" and that the Comcast website did not display the correct channel line up.
 Resolution: Advised the customer that there was a sixty day freeze on our

website as our corporate office was upgrading the software. We also had our technical department look into the problems with the local channels 2-5 freezing and they were able to resolve the issue.

- Complaint: Customer wanted a breakdown of his billing ledger.
   Resolution: Our call center lead went over the billing ledger by line item and sub was satisfied with the response and understood the bill including partial month prorates.
- 5. **Complaint:** Customer complained due to the length of time it took to get his service installed.

**Resolution:** Dispatched a lead technician to troubleshoot the issues with service and complete the installation.

- Complaint: Customer called in regarding the "Regulatory Recovery Fee" on her phone bill and wanted an explanation of charges.
   Resolution: Sub was told about all of the Regulatory Fee's stemming from phone service. Satisfied with response.
- 7. **Complaint**: Customer upset that he had issues receiving MHz on channel 205. **Resolution**: We dispatched our maintenance team who found that some of the exterior equipment had to be replaced and the signal strength was fine.
- Complaint: Customer complained about the installation of the Triple Play bundled offer and problems with service.
   Resolution: The customer received a call from our Manager of Technical Operations who addressed all of the issues that she experienced.
- 9. Complaint: Customer called about his lower channels not working. Said the issue was with the drop at his house, not inside his home. Resolution: We dispatched a team who found that there was evidence that his drop had been cut several times in the past and saw that he had a new sprinkler system installed. It appeared that someone had repaired the line by using Radio

Shack connectors which caused signal degradation. We installed a temporary line to restore his service.

- 10. **Complaint**: Customer complained that her service did not work for four months. **Resolution**: Investigated the installation and found that her service was working partially but provided a four month complimentary credit to her account. Sub satisfied.
- 11. Complaint: Customer was upset due to a payment that he made that did not clear his bank account and as such, we assessed a twenty-five dollar fee on his account. Resolution: We explained to the customer that our policy is to charge customers a "returned check" fee if the payment does not clear the banking facility.
- Complaint: Customer did not understand the promotional charges for the Triple Play bundled offer and needed further explanation.
   Resolution: We explained to the customer that the Triple Play bundled offer promotional charge did not include the Franchise Fee and taxes and surcharge and explained those charges.
- 13. **Complaint:** Customer was upset because he signed up for automatic bill pay but it was sent back to him because his routing number was incorrect. He was upset because he was hit with a "late fee."

**Resolution:** We explained to the customer that notification as mailed to him stating that the original routing number he provided was incorrect. Therefore, he had to complete another form with the corrected routing number which went through and we also removed the late fee.

- 14. Complaint: Customer disconnected service and continued to receive a bill.Resolution: We attempted to contact the customer but his home phone had been disconnected. The only bill that the customer continued to receive was in the amount of \$22.30 which included a past due balance.
- 15. **Complaint**: Customer inquired about a "hanging wire and box" that he wanted removed.

**Resolution**: We investigated this situation and found that the box belonged to Verizon.

**Complaint**: Customer complained that throughout the period of May 10 through June 15, his cable service did not work and he requested credit.

**Resolution**: Provided a credit in the amount of seventy one dollars and seventeen cents for thirty-five days without service. Sub satisfied.

16. **Complaint**: Customer states that cable went out on a number of occasions and she did not call Comcast.

**Resolution**: Spoke with the customer and scheduled a service visit. Found that she had a loose splitter at the ground block.

- 17. Complaint: Customer complains that he has no audio on some of the channels.Resolution: We dispatched our maintenance team to see if there were any issues outside. We asked the customer to unplug the box and hook it up directly to the television. We found that his box was going bad so he swapped out the box.
- 18. **Complaint**: Customer states that she had mailed in correspondence requesting to have her cable service disconnected but received another bill one month later.

**Resolution:** We found that her service was disconnected in full with a stop bill date of July 31, 2006. The customer had an outstanding balance of \$26.54 which paid for service through July 31, 2006.

- 19. Complaint: Customer states that he had issues getting his cable cards installed and said that the channels did not work.Resolution: We dispatched our lead technicians who went out and met with the customer. They were able to diagnose the problem and get the service working.
- 20. Complaint: Customer was upset about the length of prompts and roundabout nature of calling into the call center and getting a live agent on the phone.
  Resolution: Contact was made with the customer and his issue was not with the actual service but rather issues with downloading software for Vonage. It was explained that we do not support Vonage and that if he wanted to upgrade to Comcast Digital Voice service, we would accommodate that switch.
- 21. Complaint: Commercial subscriber called in stating that they were having problems with service and needed it restored.
   Resolution: We dispatched our commercial services team and maintenance team who found some issues on the line. Service was restored.
- 22. Complaint: Customer complained that the Goodwin House provides free service and was billed for individual service accordingly.
   Resolution: We researched the account and this is not the case. The Goodwin House does not receive free service in any one of their floors. Customers must pay individual fees for services rendered.
- 23. **Complaint**: Customer requested to have service terminated and wanted to know what the pro-rate would be.

**Resolution**: We contacted the customer and advised that a refund in the amount of eleven dollars and sixteen cents would be generated. Sub satisfied.

- 24. Complaint: Customer thought that she was going to be charged for the Triple Play bundled offer when she upgraded her service but the bill was incorrect. Resolution: We backdated the customers billing and credited her account for one month in the amount of thirty three dollars. Sub satisfied.
- 25. **Complaint:** Customer requested that Comcast air "Cricket on Comcast" or the international test cricket series between England and the "Auld Enemy", Australia.

**Resolution**: Explained to the customer that we cannot just "add" a channel. We receive a number of suggestions and launch channels accordingly and "Cricket series" would be taken into consideration.

- 26. **Complaint**: Customer states that his cable service was not working properly. **Resolution**: We found that the supervisor from Comcast had been in contact with the customer and followed through to ensure that their service was working fine and provided a credit for the time without service.
- 27. **Complaint:** Customer states that she had her service disconnected and moved to another location within the Comcast footprint but received a bill for eighty six dollars.

**Resolution**: We investigated the inquiry and found that the customer had transferred service and removed the eighty six dollar fee. Sub satisfied.

- 28. Complaint: We received notification from a property manager wanting to know why one particular unit at Canterbury Square continues to get disconnected.Resolution: We investigated this issue and ensured that the lines were properly tagged. Sub satisfied.
- 29. **Complaint**: Customer states that HBO was added to their account without their authorization.

**Resolution**: We investigated the inquiry and found that HBO was added "free" for two months and then converted to pay. We removed the channel and additional billing. Sub satisfied.

30. **Complaint**: Customer complained that DVR was recording in segments of twenty minute increments.

**Resolution**: Contact was made with the customer explaining that the issue affected our customers in Northern Virginia and we were working with our engineers to get the issue corrected as quickly as possible.

31. Complaint: Customer was upset that her letter, which was addressed the call center manager, went unanswered.

**Resolution**: Customer was contacted and the account adjusted accordingly.

32. **Complaint**: Customer states that he cannot receive local channels 4 and 5 and some pay per view channels.

**Resolution**: We dispatched our maintenance team who adjusted the signal levels and changed out a bad splitter. Local channels accessed as well as Video on Demand.

33. **Complaint**: Customer states that his digital service tiled and froze for three months.

**Resolution**: We found that the original installation was done through his smart box. We bypassed the smart box which was over amplifying the signal and the problem was corrected.

34. **Complaint**: Customer requested to have her service disconnected and did not understand the past due balance charge.

**Resolution**: We contacted the customer and applied the past due balance credit. Sub satisfied.

- 35. Complaint: Customer states that his service is not viewable. Resolution: We found that the drop had been squirrel chewed and had to replace the aerial drop. Sub satisfied.
- 36. Complaint: Customer complains that an entire neighborhood is experiencing issues with local channels 4, 5, 7.

**Resolution**: We dispatched our maintenance team and found that equipment inside the tap needed to be replaced.

37. **Complaint**: Customer claims that her bill had increased seventeen dollars in a twelve month period.

**Resolution**: We researched the customers billing and proved that her bill increased as an upgrade from Limited Basic to Expanded Basic, increased two dollars when MASN was launched and also included the change from the Franchise Fee to the Virginia Communications Sales Tax of 5%. Her bill increased \$3.54 in twelve months.

- 38. Complaint: Customer stated that the billing name appeared to be in the name of her deceased husband and wanted the name changed on the account.Resolution: We changed the name on the account. Sub satisfied.
- 39. **Complaint**: Customer upset due to the 5% VA Sales Tax which appeared on her billing statement.

**Resolution**: Explained to customer that the "Communications Tax" that appeared went into effect January 1, 2007. The House of Delegates, Bill 568 passed a new statue which eliminated the 3% Franchise Fee and replaced it with a 5% Communications Sales Tax and a \$.64 Right of Way Fee. Sub satisfied with response.

40. **Complaint**: Customer claims that she had attempted to cancel service since November 2006.

**Resolution**: Explained to the customer that we had access issues in attempting to disconnect service at the tap. Gained access by customer and disconnected service accordingly. Sub satisfied.

41. **Complaint**: We received a complaint from the Old Town/Hunting Creek Civic Association regarding a downed cable line.

**Resolution**: We dispatched our construction team and maintenance team. We found three strands of hard line cable broken in three sections which took one week to repair.

42. **Complaint**: Customer states that they have difficulty with Internet, Cable and Phone.

**Resolution**: We dispatched our maintenance and construction team and found that a strand of hard line had to be replaced. We also applied a one month credit to the account. Sub satisfied.

43. **Complaint**: Customer states that the digital service freezes and blackouts for 15 to 40 seconds.

**Resolution**: It was explained to the customer that we performed an upgrade with our controllers for the time change. For some reason, it caused a "glitch" in the system where some of the channels were blacking out and pixelating. The issues were resolved and a credit was applied to his account. Sub satisfied.

44. **Complaint**: Customer states that the cable wire was not properly grounded and was seeking compensation.

**Resolution**: We investigated the issue and turned the complaint over to our Quality Assurance Department. We satisfied the complainant by sending them a refund for the damages.

45. **Complaint**: Customer attempted to get service transferred but the address they were moving to was not in the system.

**Resolution**: Construction went out and confirmed that the new address was serviceable. Set up a transfer of service and was successfully installed.

46. **Complaint**: Customer states that they had no service from January 16 to February 4.

**Resolution**: We found that the hard line was damaged and had to wait on permits to complete the work.

47. **Complaint**: Customer attempted to have service installed in a townhouse unit that was turned into three apartments. The address was not in our system.

**Resolution**: Comcast went out to determine the route/path for installation and created three separate apartment units in the system for billing purposes. Sub was set up for service and installed. Sub satisfied.

- 48. Complaint: Customer was upset due to the rate increase and wanted to understand why we increased rates and changed the channel alignment. Resolution: Comcast periodically adjusts certain prices to continue to provide the most value for our customers and the price change reflects the increased value in service.
- 54. **Complaint**: Customer was sent to collections and did not understand why. **Resolution**: Explained to customer that he had an unreturned modem which we found was turned after the fact. His credit was not affected in anyway.
- 55. Complaint: A long time customer who lives in Old Town requested to have the cable (aerial) relocated to the sub pole across the street.
  Resolution: After careful research, we found that Comcast, Dominion Power and Verizon all had rights to be on the sub pole that were an eyesore to the customer. We attempted to work with his neighbor but she did not agree to the terms. Although the customer understood, he realized that we could not do anything for him. If we took the cable underground, it would cost roughly \$20,000.00 to perform the work at which time; the customer would be responsible for paying this said amount.
- 56. Complaint: Customer states that she has had problems with reception and was told that her yard had to be dug up to replace the underground cable. Resolution: We dispatched our construction coordinator who met with the customer. We stated that we could replace the underground drop before or after their party. She preferred that the work be performed after the fact.
- 57. Complaint: Customer was upset because MHz was moved to the digital tier but still an Expanded Basic channel.
  Resolution: We explained to the customer that the only way she could receive MHz is by having a digital box installed. We provided the digital box free for six months and then she would have to transition and pay the normal monthly published rate. Sub satisfied.
- 58. Complaint: Customer was upset because the NHL package was removed and he was billed for the regular NHL package not the Early Bird package. Resolution: We removed the additional charges and charged the customer for the NHL Early Bird package. Sub satisfied.
- 59. Complaint: Customer states that he disconnected service in December but was being billed for service in February. Resolution: We found that there was no record of the customer ever calling into the call center to request a disconnect of service. We honored the request and backdated his billing to reflect a December 22, 2006 disconnect date.
- 60. **Complaint:** Customer was upset regarding the relocation of AMC. **Resolution:** Sent a written response regarding the channel realignment and that we group together channels by genre.
- 61. **Complaint:** Customer complained that he had difficulty getting service installed. **Resolution:** We successfully completed the installation. Sub satisfied.

62. **Complaint:** Customer complains of intermittent service on digital channels – sporadic channels.

**Resolution:** We were dispatched to the consumer's home on a number of occasions and never could locate an issue. We provided the customer with the numbers to technical operations so if the issue happens again, we can immediately dispatch a technician. There were no problems found with the maintenance of the line, nor inside the lockbox or in the unit.

- 63. **Complaint:** Customer states that the cable cards are not compatible. **Resolution:** Our head end engineers were dispatched to the customer's home and we found that the issue stemmed from his television manufacturer.
- 64. **Complaint:** Customer states that there is a low hanging line across her deck near the back alley.

**Resolution:** We dispatched our maintenance team who took care of the issue. Sub satisfied.

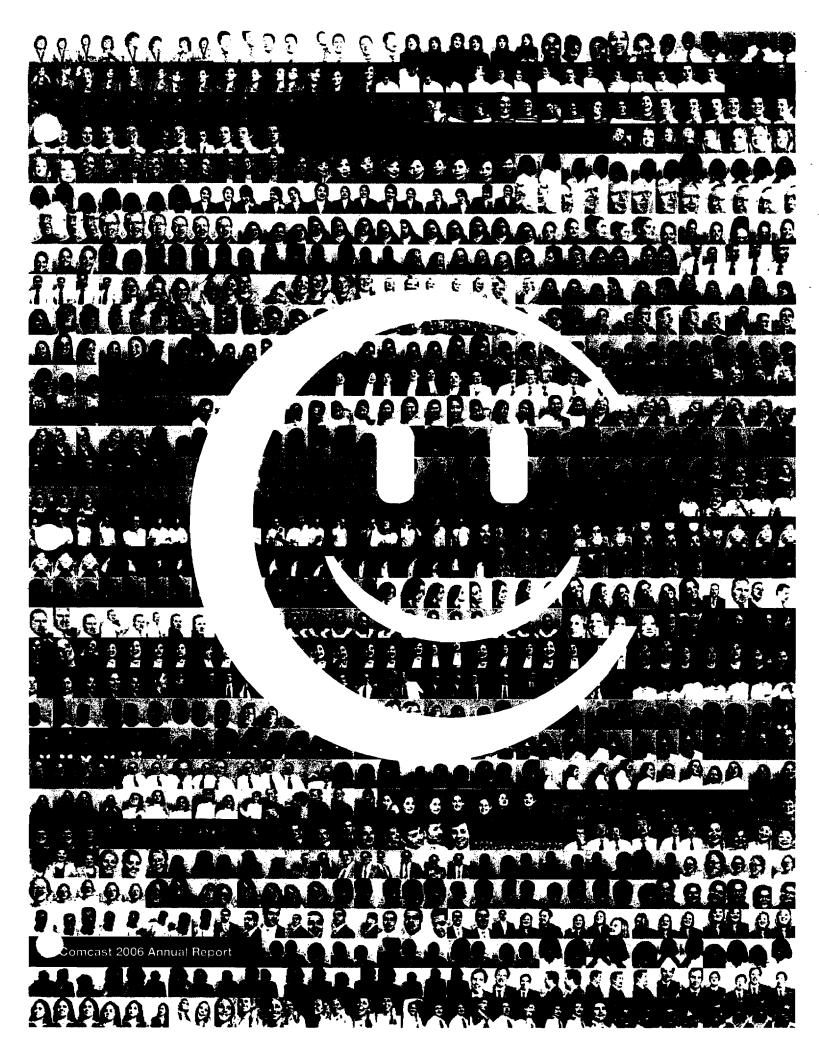
65. **Complaint:** Customer states that she has many issues with High-Definition and digital service.

**Resolution:** We dispatched our technical team who swapped out the customer's box.

- 66. **Complaint:** Customer states that the bill jumped in one month for cable service. **Resolution:** We found that the rate codes that were entered on the customers account were entered incorrectly. We coached the customer account executive and applied the corrected rate codes backdating the bill to the time it was changed.
- 67. **Complaint:** Customer states that she had many issues with service not showing up, many calls to customer service unreturned, and needed to have service in general.

**Resolution:** We researched the customers account history and applied a credit to her account. Her service issue was resolved and she wanted to convey all of the issues that she encountered. Sub satisfied.

- 68. Complaint: Customer states that he and four other town home units experienced the same inconsistency with service due to the hub with four ports.Resolution: We dispatched our maintenance team who replaced the four ports to a six port and accommodated the new customers. Sub satisfied.
- 69. Complaint: Customer had landscaping performed in his yard and his landscapers severed the drop cable leading to the home causing service to go out. Resolution: We dispatched our maintenance team who repaired the cut drop and service was restored.
- 70. Complaint: Customer complains that the Comcast line dangles 10 feet above the customer's property and is just asking to be pulled down.Resolution: We dispatched our maintenance and construction team who raised the drop. Sub satisfied.





It's about record-breaking results from innovative products with constantly improving features and functions according dealer discourses sustaining our advantage by increasing and extending the business while revving up our next growth engine.

It's making phone, computer and television faster, better and more interactive. It's adding choice, control and simplicity to the mix in one neat package.

Of course, it also describes the power of 90,000 exceptional employees — all committed to realizing the entertainment and communications dreams of our customers. Put it all together, and it's a superior experience.

And that's simply Comcastic!

Jat (Deerstoort)

Compast employ-est are all smiles these days. Why? Their hard work, dedication and enthesiasm is really paying off. That's why we verdicated to feature them in this Annual Report — they make Compast a great place to work.

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## turning a triple play it b a grand sla

"You've heard of a 'win-win.' Well, think of Triple Play as a 'win-win-win.' Subscribers get video, high-speed Internet and phone service in one convenient package and all at a great value. No wonder our phones just keep ringing."

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Triple Play has been a phenomenal growth engine for Comcast in 2006. With one call and a single installation, customers get digital cable, high-speed Internet and digital voice for S99 a month. Plus, it's great for business because: • Triple Play results in higher average monthly revenue per customer.





\$33



- Triple Play is lifting sign-up rates for our three products — they all grew faster than ever in 2006.
- Triple Play is accelerating revenue and operating cash flow growth.

ca **is...** 

# meeting every demand with ON DEMAND.

ON DEMAND viewership has grown exponentially, building customer satisfaction and loyalty with every view.

- 12.7 million, or 52%, of our video customers take digital services — all of them with access to ON DEMAND. Some 36% also take HD/DVR.
- ON DEMAND movie purchases increased pay-per-view revenue 27%, to \$633 million, in 2006, the third consecutive year of growth greater than 20%.

More than 3.7 Billion ON DEMAND Views Since 2004: 1,855



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building strong brands that deliver must-have content across multip platforms.

"Our practice are taser-focused on individual" Interests and passions. Whether it's fashion on the factor passions of domain films, or the stars of golf on the course, we're delivering great content on television, on tiemand and online."

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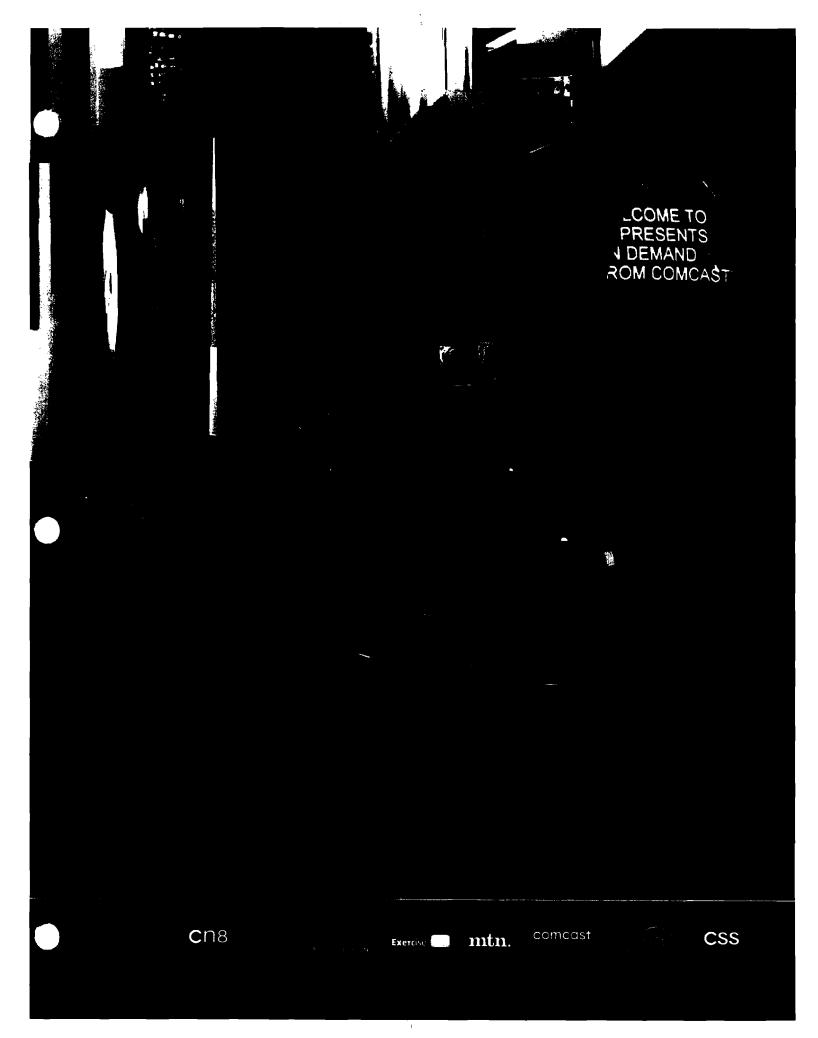
EVP, Mark, and and Communications.
 El and Style Networks.
 Ecs Angeles, CA

With first-rate content. Coincast appeals to sports fans, kids and even horror flick fans. Our networks include:



style.





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# turning up the volume on a whole new business.

Since the introduction of Comcast Digital Voice, subscriptions have surged as customers take advantage of the unlimited local and nationwide phone service, low international rates and full set of features. Growth continues to accelerate.

#### Five times more Comcast Digital Voice additions in 2006 than in 2005:

111 (111 - 111 <u>11</u>1 - 111 - 114)

1,549

#### 290

2005

2006

- Comcast Digital Voice is now marketed to 32 million homes, or 70 ~ of our footprint, and we will expand our coverage to 40 million homes by yearend 2007.
- Over 80% of voice customers take all three products.



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Mohammed Haroon



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"Our high-speed Internet service is simply a better broadband experience. With a steady stream of new features and faster speeds, it makes video downloads and interactive media a snap."

hulinda

Melinda Lindsley Director. Business Requirements/Cross-Product Systems Philadelphia, PA





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## knowing how customer exp

As we roll out new products we continue to improve our service and field support, we builds the foundation for out future growth.

- In 2006, we hired and trained 6,500 field technicians and customer service representatives to keep pace with the accelerating growth of new products. We expect the pace of new hiring to continue in 2007.
- We're investing in automated tools to increase our operating efficiency.
- We're building new training programs at Comcast University and creating new career paths to provide better service and a better experience for our customers,



"We begin technical training with (Think Customer First,' emphasizing the skills our people need to make customer comfortable, like avoiding tech.at.on, and making things simple."



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## and staying true to who we are.

"Since my first day with Comcast 25 years ago, the company has totally supported my volunteer activities — from backing my involvement in a special-needs camp, to giving me time off to help out in New York City after 9/11."

Comcast is deeply rooted in local communities. We focus our civic efforts in three areas: youth leadership, literacy and volunteerism.

- Comcast is a national partner of City Year, which recruits young people to give a year to full-time community service and leadership development. In 2006, the company provided City Year with S1.4 million in grants and in-kind support.
- Comcast's Leaders and Achievers<sup>--</sup> Scholarship Program recognized 1,728 high school seniors nationwide. Based on their community involvement and academic achievement, each earned a \$1.000 college scholarship.
- Comcast recruited a diverse group of students to participate as summer interns through our ongoing partnership with the Emma Bowen Foundation. Last year, we hosted 25 interns who received funds for college in addition to their intern stipend.



Billy

ca ! is...





Dear Comcast Shareholders, Employees and Friends:

# It was our best year ever.

clockwise from left:

Brian L. Roberts. Chairman and Chief Executive Officer

Stephen B. Burke Chief Operating Officer President Comcast Cable

Raiph J. Roberts Founder Chairman, Executive and Finance Committee

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### Triple Play: It's a Whole New Ball Game

Our Triple Play offering of video, high-speed Internet and digital voice is just what consumers want. We can deliver our superior products in a compelling value package, croviding a simple convenient and attractive option for everyone. With one phone call and one installation visit, we become the primary provider of communications and entertainment services to the home — and at an introductory price of \$99 a month, our biggest challenge has been to keep up with demand. With the widespread introduction of Triple Play to 70%, or 32 million, of the homes in our markets in 2006, consumers are embracing our Comcast Digital Voice<sup>®</sup> service. loaded with attractive features and with more to come. It's clear that Triple Play is boosting our overall take rates for video and high-speed Internet as well. As customers see the great value they're getting, they take additional digital and premium video services, too. As a result, revenue per Triple Play customer averages \$120–\$130 per month.

We were determined to be first to market on a wide scale with these three services, and we have succeeded in getting the jump on the competition. As we expand the availability of Triple Play to 85% of our customer base by the end of 2007, we expect it will continue to power our growth.

See notes and definishons on page 23.

### Innovate. Differentiate. Win.

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With more than 8,000 programming choices available today — and growing every year — ON DEMAND gives our digital cable customers unmatched choice and control. It's truly the personalization of TV. And as the penetration of HDTV sets accelerates, we're expanding our high-definition ON DEMAND offerings, too. We now offer more than 150 hours of high-definition programming ON DEMAND, primarily movies in high definition. We plan to double that number in 2007 and again in 2008, and continue to expand our linear HDTV channels, so that we remain the HDTV market leader with the most sports and movies in high definition.

With our high-speed Internet service, we deliver a better experience by continually increasing the speed of our service and adding a wealth of new features. We added 1.9 million high-speed Internet subscribers in 2006, the highest level of annual high-speed Internet additions in our history, and ended the year with 11.5 million high-speed Internet customers, representing 25% penetration of homes in our markets. We believe we will keep growing not only by continuing to attract new customers, but also by capitalizing on the capabilities of our service to power innovation and develop new online services. We created Comcast Interactive Media to focus on those opportunities. In 2006, we launched several new digital media platforms, including Ziddio, TV Planner and Game Invasion and in 2007 we plan to launch other new online services.

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We are also excited about burratest hit adverexpanding into commercial organess services — providing phone, internet and video services to smail and medium-sized businesses (SMBs). In 2007, we are beginning to target an estimated five million SMBs in our markets. We estimate that those businesses generated \$12-\$15 billion in revenue for other providers in 2006, and our goal is to capture 20% or more of this market over the next five years. Buoyed by our success in the high-speed Internet and residential digital voice markets, and riding on much of the same network and infrastructure, we enter this new field with great confidence.

Our programming division continues to be a major value creator for the company and helps us to partner and work with new platforms to help differentiate and grow our cable business. In 2006, we acquired the remaining interest in El Entertainment Television and now own 100% of it. We brought in new on-air talent, like Ryan Seacrest, and invested in programming that increased revenues and ratings at El. We made similar investments at The Golf Channel and VERSUS, drawing higher distribution and ratings as the result of our expanded relationships with the PGA TOUR and the National Hockey League.

### Investing in a Future of Opportunity

Consumers want the best services at a great price. They want things to be simple and convenient. They want to feel in control. The next great frontier for Comcast is to integrate our products in ways never before imaginable — like providing a single access point for customers to manage all their communications, or to plan and schedule their TV experience no matter where they are.

Our product teams and Comcast Interactive Media are focused on developing Integrated services that offer entertainment and communications to consumers across multiple platforms. Our programming networks are also working on that strategy PBS KIDS Sprout is available on a linear channel, on demand and online in October 2006, we launched FEARnet ia new advertising-supported, multiplatform network delivering the best of modern horror films, streaming video and original content — on demand, online and to mobile devices

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Our strong balance sheet and free cash flow – give us significant financial flexibility to movate, meas, and grow in 2006, we focused our investments in cable and our gramming to drive new product RGUs, to enhance our services and to launch new businesses. We generated over \$2.6 billion in free cash flow and used \$2.3 billion to repurchase our stock. In fact, over the past three years, we have invested virtual all of our free cash flow in our stock and securities exchangeable into our stock, reducing our shares outstanding by more than 10%.

### On a Mission to Grow

in 2007, we will focus even more intently on growing RGUs to capture market share and extend our leadership in the market. In the last five years, we have transformed Comcast into a company that develops and delivers multiple services with diverse revenue streams. Over the next few years, it is easy to imagine that our company could be serving as many high-speed Internet and digital voice customers as we have video customers today.

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The first quarter of 2007 marks a bittersweet milestone with the retirement of Larry Smith, our Co-Chief Financial Officer. Over the years, I have called Larry the company's "chief money-making officer." He has made phenomenal contributions to Comcast's growth and success — his deal-making prowess, wise counsel and steady leadership are a huge part of Comcast's culture. His friendship and guidance will continue as he remains a part-time advisor in the future. We are thrilled to have recruited Michael Angelakis, a managing director in the extremely successful Providence Equity Partners to succeed Larry. Michael will partner with John Alchin in 2007 as Co-CFO and we succeed John when he retires at the end of 2007.

See notes and definitions on page 25

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2006 represents a turning point in our history, as we have once again positioned ourselves for growth and success.

As you read this year's report in print or online, you'll see many great Comcasters who exemplify the commitment, confidence, diversity and enthusiasm that made 2006 possible and make the future look so wonderful. Each of them, and every one of our 90,000 employees, gives so much to the company every day. They are our greatest asset, and we're really proud to highlight them this year.

I will never forget what this company achieved in 2006. In many ways, it represents a turning point in our history, as we have once again positioned ourselves for growth and success. It was a phenomenal effort, led by Steve Burke and his fabulous team. My father, Ralph, and I believe we're poised for even more great achievements in 2007.

it is an honor to help lead this company. Thank you for your continued support

Sincerely.

Kig P.I.A

Brian L. Roberts Chairman and Chief Executive Officer Comcast Corporation February 23 2007

# Financial Highlights

	2006	2005
Compast Clarke Rovenues Operating Casilit flow Total Revenue Generating Units Subscribers	\$ 26,339 \$ 10,511 50.8	\$ 23,550 \$ 9,132 46.6
Basic Cable Digital Cable High-Speed Internet Phone	24.2 12.7 11.5 2.5	247.1 10.8 9.6 1.3
Consolidated Compast Corporation Revenues Operating Cash Elew* Depreciation and Amortization Operating Income Income from Continuing Operations Discontinued Operations* Net Income	\$ 24,966 9,442 4,823 4.619 2,235 298 \$ 2,533	\$ 21.575 8.072 4.551 3.521 828 100 \$ 928
Shares Outstanding	3,119	3.208
Gash and Short-Term Investments Total Assets Total Debt	\$ 2.974 110.405 \$ 28,975	\$ 1.095 103.400 \$ 23.371
Number of Employ-es	90,000	80.000

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# **Financial Report**

Management's Discussion and Analysis of Financial Condition and Results of Operations	25
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### Management's Discussion and Analysis of Financial Condition and Results of Operations

# We are the largest cable operator in the United States and offer a variety of consumer entertainment and communication products and services. As of December 31, 2006, our cable systems served approximately 23.4 million video subscribers, 11 million high-speed Internet subscribers and 2.4 million phone subscribers and passed approximately 45.7 million homes in 39 states and the District of Columbia.

We classify our operations in two reportable segments: Cable and Programming. Our Cable segment, which generates approximately 95% of our consolidated revenues, manages and operates our cable systems. Our Programming segment consists of our six national programming networks. During 2006, our operations generated consolidated revenues of approximately \$25 billion.

Our Cable segment earns revenues primarily through subscriptions to our video, high-speed Internet and phone services ("cable services"). Our video revenues continue to increase as a result of digital subscriber growth and demand for our other digital cable services, including video on demand, which we refer to as ON DEMAND, Digital Video Recorder ("DVR") and High Definition Television ("HDTV"), as well as higher pricing on our basic video service. As of December 31, 2006, approximately 51% of the homes in the areas we serve subscribed to our video service and approximately 52% of those video subscribers subscribed to at least one of our digital cable services. Our high-speed Internet service with Internet access at downstream speeds from 6Mbps to 16Mbps, depending on the level of service selected, has been one of our fastest growing services over the past several years. As of December 31, 2006, approximately 25% of the homes in the areas we serve subscribed to our high-speed Internet service. Comcast Digital Voice, our phone service that provides unlimited local and domestic long-distance calling and other features, is our most recent cable service offering. As of December 31, 2006, approximately 6% of the homes in the areas we serve subscribed to Comcast Digital Voice. In 2006, we began offering our video, high-speed Internet and Comcast Digital Voice services in a package that we refer to as the "triple play." In addition to cable services, other Cable segment revenue sources include advertising and the operation of our regional sports and news networks.

Our Programming segment consists of our consolidated national programming networks: E!, Style, The Golf Channel, VERSUS (formerty known as OLN), G4 and AZN Television. Revenue from our Programming segment is earned primarily from advertising revenues and from monthly per subscriber license fees paid by cable and satellite distributors.

Our other business interests include Comcast Spectacor, which owns the Philadelphia Flyers, the Philadelphia 76ers and two large multipurpose arenas in Philadelphia, and manages other facilities for sporting events, concerts and other events. Comcast Spectacor and all other consolidated businesses not included in our Cable or Programming segments are included in "Corporate and Other" activities. On January 31, 2007, our Board of Directors approved a threefor-two stock split in the form of a 50% stock dividend (the "Stock Split") payable on February 21, 2007, to shareholders of record on February 14, 2007. The number of shares outstanding and related amounts have been adjusted to reflect the Stock Split for all periods presented.

### 2006 Financial and Operational Highlights

- consolidated revenue growth of 18.5% and consolidated operating income growth of 31.2%, both driven by results in our Cable segment
- Cable segment revenue growth of 20.6% and growth in operating income before depreciation and amortization of 22.1%, both driven by revenue generating units ("RGUs") growth and the success of our triple play offering, as well as growth from acquisitions

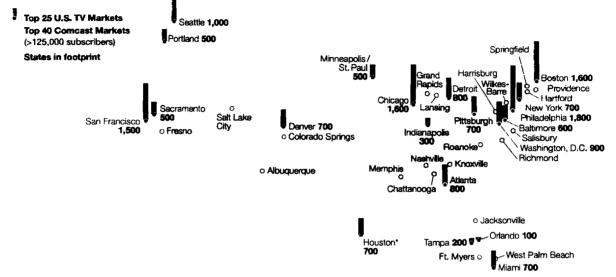
### **2006 Business Developments**

- completed transactions with Adelphia and Time Warner that resulted in a net increase of 1.7 million video subscribers, a net cash payment by us of approximately \$1.5 billion and the disposition of our ownership interest in Time Warner Cable Inc. ("TWC") and Time Warner Entertainment Company, L.P. ("TWE"), the assets of two cable system partnerships and the transfer of our previously owned cable systems in Los Angeles, Cleveland and Dallas. We collectively refer to these transactions as the "Adelphia and Time Warner transactions."
- initiated the dissolution of the Texas and Kansas City Cable Partnership ("TKCCP") that resulted in our acquisition of cable systems serving Houston, Texas (approximately 700,000 video subscribers) in January 2007
- acquired the cable systems of Susquehanna Communications serving approximately 200,000 video subscribers for approximately \$775 million
- acquired the 39.5% interest in El Entertainment Television (which operates the E! and Style programming networks) that we did not already own for approximately \$1.2 billion
- participated in a consortium of investors ("SpectrumCo") that acquired wireless spectrum licenses covering approximately 91% of the population in the United States for approximately \$2.4 billion (our portion was \$1.3 billion)
- repurchased approximately 113 million shares (adjusted to reflect the Stock Split) of our Class A Special common stock pursuant to our Board-authorized share repurchase program for approximately \$2.3 billion

Refer to Note 5 to our consolidated financial statements for information about acquisitions and other significant events.

### The Areas We Serve

The map below highlights our 40 major markets with emphasis on our operations in the top 25 U.S. TV markets. Approximately 90% of our video subscribers are in the markets listed (subscribers in thousands).



\*As of January 1, 2007

The following provides further details of our highlights and insights into our consolidated financial statements, including discussion of our results of operations and our liquidity and capital resources. As a result of transferring our previously owned cable systems located in Los Angeles, Cleveland and Dallas ("Comcast Exchange Systems"), the operating results of the Comcast Exchange Systems are reported as discontinued operations for all periods presented.

Year Ended December 31 (in millions)	2006	2005	2004	% Change 2005 to 2006	% Change 2004 to 2005
Revenues	\$24,966	\$21,075	\$19,221	18.5%	9.6%
Costs and Expenses					
Operating, Selling, General and Administrative (excluding depreciation)	15,524	13,003	12,041	19.4	8.0
Depreciation	3,828	3,413	3,197	12.2	6.8
Amortization	995	1,138	1,154	(12.5)	(1.5)
Operating Income	4,619	3,521	2,829	31.2	24.4
Other Income (Expense) Items, net	(1,025)	(1,801)	(1,086)	(43.1)	65.8
Income from Continuing Operations before Income Taxes and					
Minority Interest	3,594	1, <b>72</b> 0	1,743	109.0	(1.4)
Income Tax Expense	(1,347)	(873)	(801)	54.3	<b>9</b> .0
Income from Continuing Operations before Minority Interest	2,247	847	942	165.5	(10.2)
Minority Interest	(12)	(19)	(14)	(36.8)	35.7
Income from Continuing Operations	2,235	828	928	169.9	(10.8)
Discontinued Operations, net of Tax	298	100	42	198.0	138.1
Net Income	\$ 2,533	\$ 928	\$ 970	173.0%	<b>(</b> 4.3)%

All percentages are calculated based on actual amounts. Minor differences may exist due to rounding.

### **Consolidated Revenues**

Our Cable and Programming segments accounted for substantially all of the increases in consolidated revenues for 2006 and 2005. Cable segment and Programming segment revenues are discussed separately below. The remaining changes relate to our other business activities, primarily Comcast Spectacor, whose revenues were negatively affected in 2005 by the National Hockey League ("NHL") lockout.

### Consolidated Operating, Selling, General and Administrative Expenses

Our Cable and Programming segments accounted for substantially all of the increases in consolidated operating, selling, general and administrative expenses for 2006 and 2005. Cable segment and Programming segment expenses are discussed separately below. The remaining changes relate to our other business activities, primarily Comcast Spectacor, and the impact of adopting Statement of Financial Accounting Standards ("SFAS") No. 123R, "Share-Based Payment" ("SFAS No. 123R").

Effective January 1, 2006, we adopted SFAS No. 123R using the Modified Prospective Approach. SFAS No. 123R revises SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS No. 123") and supersedes Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB No. 25"). SFAS No. 123R requires the cost of all share-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values at grant date, or the date of later modification, over the requisite service period. In addition, SFAS No. 123R requires unrecognized cost (based on the amounts previously disclosed in our pro forma footnote disclosure) related to options vesting after the date of initial adoption to be recognized in the financial statements over the remaining requisite service period.

The incremental pretax share-based compensation expense recognized because of the adoption of SFAS No. 123R for the year ended December 31, 2006, was \$126 million. Total share-based compensation expense recognized under SFAS No. 123R, including the incremental pretax share-based compensation expense, was \$190 million for the year ended December 31, 2006. Sharebased compensation expense is reflected in the operating results of each of our business segments. Refer to Note 10 and Note 14 to our consolidated financial statements for further details on our adoption of SFAS No. 123R.

### **Consolidated Depreciation and Amortization**

The increases in depreciation expense for 2006 and 2005 are primarily a result of capital expenditures in our Cable segment and, in 2006, the depreciation associated with acquisitions of cable systems.

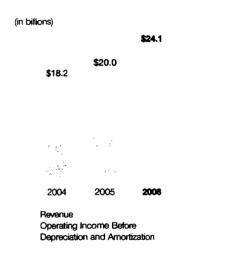
The decreases in amortization expense for 2006 and 2005 are primarily a result of decreases in the amortization of our franchiserelated customer relationship intangible assets, partially offset by increased amortization expense related to software-related intangibles acquired in various transactions, and in 2006, the customer relationship intangible assets recorded in connection with the acquisitions of cable systems.

Certain adjustments have been made in our segment presentation to be consistent with our management reporting presentation. These adjustments primarily relate to the adoption of SFAS No. 123R and are further discussed in Note 14 to our consolidated financial statements.

To measure the performance of our operating segments, we use operating income before depreciation and amortization, excluding impairment charges related to fixed and intangible assets, and gains or losses from the sale of assets, if any. This measure eliminates the significant level of noncash depreciation and amortization expense that results from the capital-intensive nature of our businesses and from intangible assets recognized in business combinations. It is also unaffected by our capital structure or investment activities. We use this measure to evaluate our consolidated operating performance, the operating performance of our operating segments, and to allocate resources and capital to our operating segments. It is also a significant performance measure in our annual incentive compensation programs. We believe that this measure is useful to investors because it is one of the bases for comparing our operating performance with other companies in our industries, although our measure may not be directly comparable to similar measures used by other companies. Because we use this metric to measure our segment profit or loss, we reconcile it to operating income, the most directly comparable financial measure calculated and presented in accordance with generally accepted accounting principles in the United States ("GAAP") in the business segment footnote to our consolidated financial statements. You should not consider this measure a substitute for operating income (loss), net income (loss), net cash provided by operating activities, or other measures of performance or liquidity we have reported in accordance with GAAP.

#### **Cable Segment Overview**

Our cable systems simultaneously deliver video, high-speed Internet and phone services to our subscribers. The majority of our Cable segment revenue is earned from subscriptions to these cable services. Subscribers typically pay us monthly, based on their chosen level of service, number of services and the type of equipment they use, and generally may discontinue service at any time. We measure our success in selling subscription-based services to customers by a metric referred to as a revenue generating unit ("RGU"). Each individual cable service (basic cable, digital cable, high-speed Internet or phone service) that a subscriber receives represents one RGU. As of December 31, 2006, we had approximately 50.8 million RGUs. As a result of continued and growing demand for our existing and new products and services, including our triple play offering, as well as other factors discussed below, we have increased our revenues and operating income before depreciation and amortization.



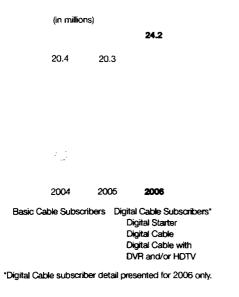
#### **Cable Segment Results of Operations**

The comparability of the results of operations and subscriber information of our Cable segment are impacted by the Adelphia and Time Warner transactions (closed July 31, 2006) and the acquisition of the cable systems of Susquehanna Communications (closed April 30, 2006). Further, consistent with our management reporting presentation, the operating results and subscriber information of the cable systems serving Houston, Texas have been included in the Cable segment beginning August 1, 2006. However, the operating results of the Houston cable systems are eliminated in our consolidated financial statements as TKCCP continued to be accounted for as an equity method investment for external financial reporting purposes until the Houston cable systems were actually acquired on January 1, 2007 (see Note 5). We collectively refer to these cable systems as the "newly acquired cable systems." The newly acquired cable systems accounted for \$1.7 billion of increased revenue in 2006.

**Video.** We offer a full range of video services, ranging from a limited basic service and a digital starter service, to our full digital cable service, which provides access to over 250 channels, including premium and pay-per-view channels; ON DEMAND (which allows access to a library of movies, sports and news, starting a selection at any time, and pausing, rewinding and fast-forwarding selections); music channels; and an interactive, on-screen program guide (which allows navigating the channel lineup and ON DEMAND library). Digital cable subscribers may also subscribe to additional digital cable services, including DVR (which allows digital recording of programs, and pausing and rewinding of live television), and HDTV (which provides multiple channels in high definition).

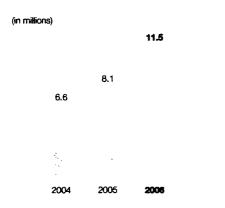
As of December 31, 2006, approximately 52% of our video subscribers subscribed to at least one of our digital cable services, compared to approximately 45% and approximately 39% as of December 31, 2005 and 2004, respectively.

Year Ended December 31 (in millions)	2006	2005	2004	% Change 2005 to 2006	% Change 2004 to 2005
Video	\$ 15,096	\$ 12,918	\$12,211	16.9%	5.8%
High-speed Internet	4,986	3,757	2,938	32.7	27.9
Phone	913	617	620	48.0	(0.5)
Advertising	1,537	1,272	1,206	20.8	5.4
Other	851	789	654	7.8	20.7
Franchise fees	717	634	601	13.1	5.3
Revenues	24,100	19,987	18,230	20.6	9.6
Operating expenses	8,600	7,041	6,656	22.1	5.8
Selling, general and administrative expenses	5,796	4,999	4,634	15.9	7.8
Operating income before depreciation and amortization	\$ 9,704	\$ 7,947	\$ 6,940	22.1%	14.5%



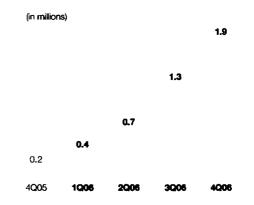
Revenues increased as a result of higher pricing on our basic video service, growth in our digital cable services and, in 2006, the addition of our newly acquired cable systems. Our newly acquired cable systems added approximately 3.7 million video subscribers and contributed \$1.143 billion of our video revenue growth for the year ended December 31, 2006. As a result of these factors, our average monthly video revenue per video subscriber increased from \$50 in 2004 to \$57 in 2006.

**High-Speed Internet.** We offer high-speed Internet service with Internet access at downstream speeds from 6Mbps to 16Mbps, depending on the level of service selected. This service also includes our interactive portal, Comcast.net, which provides multiple e-mail addresses and online storage, as well as a variety of proprietary content and value-added features and enhancements that are designed to take advantage of the speed of the Internet service we provide.



Revenues increased in 2006 and 2005 as a result of subscriber growth and, in 2006, the addition of our newly acquired cable systems. As of December 31, 2006, 24.5% of our homes passed subscribed to our high-speed Internet service, compared to 21.1% and 17.8% as of December 31, 2005 and 2004, respectively. Our newly acquired cable systems added approximately 1.7 million high-speed Internet subscribers and contributed \$379 million of our high-speed Internet revenue growth for the year ended December 31, 2006. Average monthly revenue per high-speed Internet subscriber has remained relatively stable between \$42 and \$43 from 2004 through 2006. The rate of subscriber and revenue growth may slow as the market continues to mature and competition increases.

**Phone.** We offer Comcast Digital Voice, our IP-enabled phone service that provides unlimited local and domestic long-distance calling and includes such features as Voice Mail, Caller ID and Call Waiting. Comcast Digital Voice was available to 32 million homes as of December 31, 2006. We expect that by the end of 2007 approximately 85% of our homes passed will have access to Comcast Digital Voice. In some areas, we provide our circuit-switched local phone service. Subscribers to this service have access to a full array of calling features and third-party long-distance services.



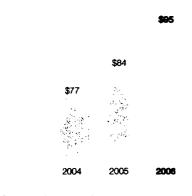
Revenues increased in 2006 as a result of the increase in Comcast Digital Voice subscribers, partially offset by the loss of approximately 300,000 circuit-switched subscribers. Our newly acquired cable systems added approximately 156,000 phone subscribers and contributed \$40 million of our phone revenue growth for the year ended December 31, 2006. The decrease in phone revenues in 2005 from 2004 was primarily the result of a reduction in the number of circuit-switched phone subscribers as we began the deployment of Comcast Digital Voice. We expect the number of phone subscribers will grow as we expand Comcast Digital Voice to new markets in 2007. We expect the number of subscribers to our circuit-switched local phone service to continue to decrease in 2007 as our marketing efforts are now focused on Comcast Digital Voice. Advertising. As part of our programming license agreements with programming networks, we receive an allocation of scheduled advertising time that we may sell to local, regional and national advertisers. We also coordinate the advertising sales efforts of other cable operators in some markets, and in other markets we have formed and operate advertising interconnects, which establish a physical, direct link between multiple cable systems and provide for the sale of regional and national advertising across larger geographic areas than could be provided by a single cable operator.

Advertising revenues increased in 2006 as a result of the strong growth in political advertising and the addition of our newly acquired cable systems. We expect slower growth in our advertising revenues in 2007, primarily as a result of lower levels of political advertising.

**Other.** We also generate revenues from our regional sports and news networks, video installation services, commissions from third-party electronic retailing, and fees for other services, such as providing businesses with data connectivity and networked applications. Our regional sports and news networks include Comcast SportsNet (Philadelphia), Comcast SportsNet Mid-Atlantic (Baltimore/Washington), Cable Sports Southeast, CN8 – The Comcast Network, Comcast SportsNet Chicago, Comcast SportsNet West (Sacramento) and MountainWest Sports Network. These networks earn revenue through the sale of advertising time and receive programming license fees paid by cable and satellite distributors.

**Franchise Fees.** Our franchise fee revenues represent the passthrough to our subscribers of the fees required to be paid to state and local franchising authorities. Under the terms of our franchise agreements, we are generally required to pay up to 5% of our gross video revenues to the local franchising authority. The increases in franchise fees are primarily a result of the increases in our revenues upon which the fees apply.

**Total Cable Segment Revenue.** As a result of the growth in revenues from our products and services, we have been able to increase our total average monthly revenue per video subscriber (including all revenue sources) from approximately \$77 in 2004 to approximately \$95 in 2006.



We continue to focus on controlling the growth of expenses. Our operating margins (operating income before depreciation and amortization as a percentage of revenue) were 40.2%, 39.8% and 38.1% for the years ended December 31, 2006, 2005 and 2004, respectively.



**Cable Segment Operating Expenses.** Cable programming expenses, our largest expense, are the fees we pay to programming networks to license the programming we package, offer and distribute to our cable subscribers. These expenses are affected by changes in the rates charged by programming networks, the number of subscribers and the programming options we offer to subscribers. Cable programming expenses increased to \$4.9 billion in 2006 as a result of increases in rates and the newly acquired cable systems, from \$4.1 billion in 2005 and \$3.9 billion in 2004. We anticipate our cable programming expenses will increase in the future, as the fees charged by programming networks increase and as we provide additional channels and ON DEMAND programming options to our subscribers. We anticipate that these increases may be mitigated to some extent by volume discounts.

Other operating expenses increased to \$3.7 billion in 2006 from \$2.9 billion in 2005 and \$2.8 billion in 2004. In 2006, our newly acquired cable systems contributed approximately \$650 million of our increases in other operating expenses. The remaining increases in 2006 were primarily a result of growth in the number of subscribers to our cable services, which required additional personnel to handle service calls and provide customer support, and costs associated with the delivery of these services. The increase in 2005 was primarily a result of increases in our technical services group due to the launch of Comcast Digital Voice, the deployment of digital simulcasting, the implementation of a new provisioning system and, to a lesser degree, the repair of our cable systems as a result of weather-related damage.

MD&A Comcast 2006 Annual Report

Cable Segment Selling, General and Administrative Expenses. Selling, general and administrative expenses increased \$797 million to \$5.8 billion in 2006. In 2006, our newly acquired cable systems contributed approximately \$400 million of our increases in selling, general and administrative expenses. The remaining increases in 2006 were primarily a result of growth in the number of subscribers to our cable services, which required additional employees to handle customer service, marketing and other administrative costs. The increase in 2005 was primarily a result of the launch of Comcast Digital Voice, the deployment of digital simulcasting and the implementation of a new provisioning system.

### **Programming Segment Overview**

Our Programming segment consists of our consolidated national programming networks:

Programming Network	Approximate U.S. Subscribers (in millions)	Description
E!	81	Pop culture and entertainment-related programming
Style	37	Lifestyle-related programming
The Golf Channel	63	Golf and golf-related programming
VERSUS	61	Sports and leisure programming
G4	53	Gamer lifestyle programming
AZN Television	14	Asian American programming

We also own interests in MGM (20%), iN DEMAND (54%), TV One (33%), PBS KIDS Sprout (40%), FEARnet (33%) and ExerciseTV (55%). The operating results of these entities are not included in our Programming segment's operating results as they are presented in equity in net (losses) income of affiliates, net or Corporate and Other activities.

### **Programming Segment Results of Operations**

Year Ended December 31 (in millions)	2006	2005	2004	% Change 2005 to 2006	% Change 2004 to 2005
Revenues	\$1,053	\$919	\$ 787	14.6%	<b>16.7%</b>
Operating, selling, general and administrative expenses	812	647	518	25.6	24.7
Operating income before depreciation and amortization	<b>\$ 241</b>	\$ 272	\$ 269	(11.4)%	<b>6</b> 1.3%

Revenues from our Programming segment are earned primarily from the sale of advertising time and from monthly per subscriber license fees paid by cable and satellite distributors. Programming revenues for 2006 and 2005 increased as a result of increases in advertising and license fee revenues. For 2006, 2005 and 2004, approximately 11% to 12% of our Programming segment revenues were generated from our Cable segment and are eliminated in our consolidated financial statements, but are included in the amounts presented above.

Operating, selling, general and administrative expenses consist mainly of the cost of producing television programs and live events, the purchase of programming rights, marketing and promoting our programming networks, and administrative costs. Programming expenses for 2006 and 2005 increased as a result of an increase in production and programming rights costs for new and live event programming for our programming networks, including the NHL on VERSUS, and a corresponding increase in marketing expenses for this programming. The full-year impact of our 2004 acquisitions of TechTV and AZN Television also contributed to the growth in 2005 expenses. We have and expect to continue to invest in new and live event programming, such as our recent rights agreement with the PGA TOUR, that will cause our Programming segment expenses to increase in the future.

Year Ended December 31 (in millions)	2006	2005	2004
Interest expense	\$ (2,064)	\$ (1,795)	\$ (1,874)
Investment income (loss), net	990	89	472
Equity in net (losses) income			
of affiliates, net	(124)	(42)	(81)
Other income (expense)	173	(53)	397
Total	\$ (1,025)	\$ (1,801)	\$ (1,086)

### Interest Expense

The increase in interest expense for 2006 from 2005 was primarily the result of an increase in our average debt outstanding and higher interest rates on our variable-rate debt, as well as \$57 million of gains recognized in 2005 in connection with the early extinguishment of some of our debt facilities. The decrease in interest expense for 2005 from 2004 was primarily the result of \$57 million of gains recognized in 2005 and \$69 million of losses recognized in 2004 in connection with the early extinguishment of some of our debt facilities, partially offset by the effects of higher interest rates on variable-rate debt in 2005.

### investment income (Loss), Net

The components of investment income (loss), net for 2006, 2005 and 2004 are presented in a table in Note 6 to our consolidated financial statements. In connection with the Adelphia and Time Warner transactions, we recognized gains of approximately \$646 million for the year ended December 31, 2006.

We have entered into derivative financial instruments that we account for at fair value and which economically hedge the market price fluctuations in the common stock of substantially all of our investments accounted for as trading securities. The differences between the unrealized gains (losses) on trading securities and the mark to market adjustments on derivatives related to trading securities, as presented in the table in Note 6, result from one or more of the following:

- we did not maintain an economic hedge for our entire investment in the security during some or all of the period
- there were changes in the derivative valuation assumptions such as interest rates, volatility and dividend policy
- the magnitude of the difference between the market price of the underlying security to which the derivative relates and the strike price of the derivative
- the change in the time value component of the derivative value during the period
- the security to which the derivative relates changed due to a corporate reorganization of the issuing company to a security with a different volatility rate

### Equity in Net (Losses) Income of Affiliates, Net

The increase in equity in net losses of affiliates for 2006 from 2005 was primarily a result of other-than-temporary impairment charges recognized in 2006. The decrease in equity in net losses of affiliates for 2005 from 2004 was primarily a result of changes in the net income or loss of our equity investees.

### Other Income (Expense)

Other income for 2006 consisted principally of \$170 million of gains on the sales of investment assets. Other expense for 2005 consisted principally of a \$170 million payment representing our share of the settlement amount related to certain of AT&T's litigation with At Home, partially offset by a \$24 million gain on the exchange of one of our equity method investments and \$62 million of gains recognized on the sale or restructuring of investment assets in 2005. Other income for 2004 consisted principally of the \$250 million reduction in the estimated fair value liability associated with the securities litigation of an acquired company and the \$94 million gain recognized on the sale of our investment in DHC Ventures, LLC ("Discovery Health Channel").

Our effective income tax rate was 37.5%, 50.7% and 45.9% for 2006, 2005 and 2004, respectively. Tax expense reflects an effective income tax rate that differs from the federal statutory rate primarily as a result of state income taxes and adjustments to prior year accruals, including related interest. Adjustments to prior year accruals in 2006 are principally related to the favorable resolution of issues and revised estimates of the outcome of unresolved issues with various taxing authorities.

The operating results of our previously owned cable systems located in Los Angeles, Dallas and Cleveland, reported as discontinued operations for 2006, include seven months of operations, as the closing date of the transaction was July 31, 2006. For 2005 and 2004, results include 12 months of operations. As a result of the exchange transaction, we recognized a gain on the sale of these systems of \$195 million, net of tax of \$541 million (see Note 5). The effective tax rate on the gain is higher than the federal statutory rate primarily as a result of the nondeductible amounts attributed to goodwill.

As we describe further below, our businesses generate significant cash flow from operating activities. The proceeds from monetizing our nonstrategic investments have also provided us with a significant source of cash flow. We believe that we will be able to meet our current and long-term liquidity and capital requirements, including fixed charges, through our cash flow from operating activities, existing cash, cash equivalents and investments; through available borrowings under our existing credit facilities; and through our ability to obtain future external financing. We anticipate continuing to use a substantial portion of our cash flow to fund our capital expenditures, invest in business opportunities and repurchase our stock.

### **Operating Activities**

Net cash provided by operating activities amounted to \$6.618 billion for 2006, primarily as a result of our operating income before depreciation and amortization, the timing of interest and income tax payments, and changes in other operating assets and liabilities.

### **Financing Activities**

Net cash provided by financing activities was \$3.546 billion for 2006, and consisted principally of our proceeds from borrowings of

\$7.497 billion, partially offset by our debt repayments of \$2.039 billion, and our repurchase of approximately 113 million shares of our Class A Special common stock at a weighted-average share price of \$20.76 for \$2.347 billion (recognized on a settlement date or cash basis and adjusted to reflect the Stock Split). We have made, and may from time to time in the future make, optional repayments on our debt obligations, which may include repurchases of our outstanding public notes and debentures, depending on various factors, such as market conditions. See Note 8 to our consolidated financial statements for further discussion of our financing activities, including details of our debt repayments and borrowings.

We traditionally maintain significant availability under lines of credit and our commercial paper program to meet our short-term liquidity requirements. As of December 31, 2006, amounts available under these facilities totaled \$4.464 billion.

We and our cable subsidiaries that have provided guarantees (see Note 8) are subject to the covenants and restrictions set forth in the indentures governing our public debt securities and in the credit agreement governing our bank credit facilities. We and the guarantors are in compliance with the covenants, and we believe that neither the covenants nor the restrictions in our indentures or loan documents will limit our ability to operate our business or raise additional capital. Our covenants are tested on an ongoing basis. The only financial covenant in our \$5.0 billion revolving credit facility relates to leverage (ratio of debt to operating income before depreciation and amortization), which we met by a significant margin as of December 31, 2006: Our ability to comply with this financial covenant in the future does not depend on further debt reduction or on improved operating results.

As of December 31, 2006, the maximum dollar value of shares remaining that may be repurchased under our Board-authorized share repurchase program was approximately \$3 billion. We expect such repurchases to continue from time to time in the open market or in private transactions, subject to market conditions.

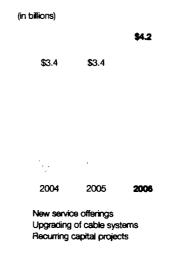


### **Investing Activities**

Net cash used in investing activities was \$9.872 billion for 2006 and consists principally of cash paid for acquisitions of \$5.110 billion (primarily related to the Adelphia transaction, Susquehanna Communications acquisition and the acquisition of our additional interest in E! Entertainment Television), capital expenditures of \$4.395 billion, and investments of \$2.812 billion (primarily related to our interest in SpectrumCo and the additional funding related to the dissolution of TKCCP). These cash outflows were partially offset by proceeds from sales, settlements and restructuring of investments of \$2.720 billion (primarily related to our disposition of our ownership interest in TWE and TWC).

Refer to Notes 5, 6 and 7 to our consolidated financial statements for a discussion of our acquisitions and other significant events, investments, and our intangible assets, respectively.

Our most significant recurring investing activity has been capital expenditures, and we expect that this will continue in the future. The following chart illustrates the capital expenditures we incurred in our Cable segment from 2004 through 2006:



In 2006, approximately 75% of Cable capital expenditures were variable and directly associated with continued and growing demand for our existing and new products and services, which leads to increases in RGUs. The amounts of capital expenditures in our Programming segment and our other business activities have not been significant and have been relatively stable from 2004 through 2006. The amounts of our capital expenditures for 2007 and for subsequent years will depend on numerous factors, including acquisitions, competition, changes in technology and the timing and rate of deployment of new services.

We maintain a mix of fixed and variable-rate debt. Approximately 94% of our total debt of \$28.975 billion is at fixed rates with the remaining at variable rates. We are exposed to the market risk of adverse changes in interest rates. In order to manage the cost and volatility relating to the interest cost of our outstanding debt, we enter into various interest rate risk management derivative transactions pursuant to our policies.

We monitor our interest rate risk exposures using techniques that include market value and sensitivity analyses. We do not hold or issue any derivative financial instruments for speculative purposes and we are not a party to any leveraged derivative instruments. We manage the credit risks associated with our derivative financial instruments through the evaluation and monitoring of the creditworthiness of the counterparties. Although we may be exposed to losses in the event of nonperformance by the counterparties, we do not expect such losses, if any, to be significant.

Our interest rate derivative financial instruments, which can include swaps, rate locks, caps and collars, represent an integral part of our interest rate risk management program. Our interest rate derivative financial instruments reduced the portion of our total debt at fixed-rates from 94% to 83% as of December 31, 2006. The effect of our interest rate derivative financial instruments increased our interest expense by approximately \$39 million in 2006, and decreased our interest expense by approximately \$16 million and \$66 million in 2005 and 2004, respectively. Interest rate risk management instruments may have a significant effect on our interest expense in the future.

The table set forth below summarizes the fair values and contract terms of financial instruments subject to interest rate risk maintained by us as of December 31, 2006:

(in millions)	20	77		2008		2009		2010		2011	The	reafter		Total	<sup>-</sup> air Value 12/31/06
Debt															
Fixed-Rate	\$ 90	8	\$1	,474	\$	990	\$1	,109	\$1	,741	\$2	0,982	\$2	27,204	\$ 28,923
Average Interest Rate	8	.3%		7.3%		7.5%		5.7%		6.4%		7.2%		7.2%	
Variable-Rate	\$7	'5	\$	194	\$1	,259	\$	211	\$	26	\$	6	\$	1,771	\$ 1,771
Average Interest Rate	5	.8%		5.5%		5.3%		5.1%		5.9%		6.8%		5.3%	
Interest Rate instruments <sup>(a)</sup>															
Fixed to Variable Swaps	\$	• <b>-</b> -	\$	600	\$	750	\$	200	\$	750	\$	900	\$	3,200	\$ (103)
Average Pay Rate		-%		7.2%		7.0%		6.1%		6.1%		5.4%		6.3%	
Average Receive Rate		-%		6.2%		6.9%		5.9%		5.5%		5.3%		5.9%	

(a) We did not have any variable to fixed swaps as of December 31, 2006.

We use the notional amounts on the instruments to calculate the interest to be paid or received. The notional amounts do not represent the amount of our exposure to credit loss. The estimated fair value approximates the payments necessary to settle the outstanding contracts. We estimate interest rates on variable debt using the average implied forward London Interbank Offered Rate ("LIBOR") rates for the year of maturity based on the yield curve in effect on December 31, 2006, plus the applicable margin in effect on December 31, 2006. We estimate the floating rates on our swaps using the average implied forward LIBOR for the year of maturity based on the yield curve in effect on December 31, 2006.

As a matter of practice, we typically do not structure our financial contracts to include credit-ratings-based triggers that could affect our liquidity. In the ordinary course of business, some of our swaps could be subject to termination provisions if we do not maintain investment grade credit ratings. As of December 31, 2006, and 2005, the estimated fair value of those swaps was a liability of \$60 million and \$69 million, respectively. The amount to be paid or received upon termination, if any, would be based upon the fair value of those outstanding contracts at that time.

We are exposed to the market risk of changes in the equity prices of our investments in marketable securities. We enter into various derivative transactions pursuant to our policies to manage the volatility relating to these exposures.

Through market value and sensitivity analyses, we monitor our equity price risk exposures to ensure that the instruments are matched with the underlying assets or liabilities, reduce our risks relating to equity prices and maintain a high correlation to the risk inherent in the hedged item.

To limit our exposure to and benefits from price fluctuations in the common stock of some of our investments, we use equity derivative financial instruments. These derivative financial instruments include equity collar agreements, prepaid forward sales agreements and indexed or exchangeable debt instruments and are accounted for at fair value. Except as described in "Investment income (Loss), Net" (see above), the changes in the fair value of our investments that we accounted for as trading securities were substantially offset by the changes in the fair values of the equity derivative financial instruments. Refer to Note 2 to our consolidated financial statements for a discussion of our accounting policies for derivative financial instruments and to Note 6 and Note 8 to our consolidated financial statements for discussions of our derivative financial instruments.

Our unconditional contractual obligations as of December 31, 2006, which consist primarily of our debt obligations and their amounts in future periods, are summarized in the following table:

(in millions)	Payments Due by Period								
	Total	Year 1	Years 2-3	Years 4-5	More than 5				
Debt obligations <sup>(a)</sup>	\$ 28,909	\$ 962	\$ 3,900	\$ 3,079	\$ 20,968				
Capital lease obligations	66	21	17	8	20				
Operating lease obligations	1,614	292	491	253	578				
Purchase obligations <sup>(b)</sup>	12,068	3,809	3,056	2,150	3,053				
Other long-term liabilities reflected on the balance sheet:									
Acquisition-related obligations <sup>(c)</sup>	364	271	75	11	7				
Other long-term obligations <sup>(d)</sup>	4,361	283	449	207	3,422				
Total	\$ 47,382	\$ 5,638	\$ 7,989	\$ 5,707	\$ 28,048				

Refer to Note 8 (long-term debt) and Note 13 (commitments) to our consolidated financial statements.

(a) Excludes interest payments.

(b) Purchase obligations consist of agreements to purchase goods and services that are legally binding on us and specify all significant terms, including fixed or minimum quantities to be purchased and price provisions. Our purchase obligations primarily relate to our Cable segment, including contracts with programming networks, customer premise equipment manufacturers, communication vendors, other cable operators for which we provide advertising sales representation, and other contracts entered into in the normal course of business. We also have purchase obligations through Comcast Spectacor for the players and coaches of our professional sports teams. We did not include contracts with immaterial future commitments.

(c) Acquisition-related obligations consist primarily of costs related to terminated employees, costs relating to exiting contractual obligations, and other assumed contractual obligations of the acquired entity.

(d) Other long-term obligations consist primarily of our prepaid forward sales transactions of equity securities we hold, subsidiary preferred shares, deferred compensation obligations, pension, postretirement and postemployment benefit obligations, and programming rights payable under license agreements.

We do not have any significant off-balance sheet arrangements that are reasonably likely to have a current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

The preparation of our financial statements requires us to make estimates that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and contingent liabilities. We base our judgments on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making estimates about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe our judgments and related estimates associated with the valuation and impairment testing of our cable franchise rights and the accounting for income taxes and legal contingencies are critical in the preparation of our financial statements. Management has discussed the development and selection of these critical accounting judgments and estimates with the Audit Committee of our Board of Directors, and the Audit Committee has reviewed our disclosures relating to them presented below.

Refer to Note 2 to our consolidated financial statements for a discussion of our accounting policies with respect to these and other items.

### Valuation and Impairment Testing of Cable Franchise Rights

Our largest asset, our cable franchise rights, results from agreements we have with state and local governments that allow us to construct and operate a cable business within a specified geographic area. The value of a franchise is derived from the economic benefits we receive from the right to solicit new subscribers and to market new services such as additional digital cable services, highspeed Internet and phone services in a particular service area. The amounts we record for cable franchise rights are primarily the result of cable system acquisitions. Typically when we acquire a cable system, the most significant asset we record is the value of the franchise intangible. Often these cable system acquisitions include multiple franchise areas. We currently serve approximately 6,000 franchise areas in the United States.

We have concluded that our cable franchise rights have an indefinite useful life since there are no legal, regulatory, contractual, competitive, economic or other factors which limit the period over which these rights will contribute to our cash flows. Accordingly, we do not amortize our cable franchise rights but assess the carrying value of our cable franchise rights annually, or more frequently whenever events or changes in circumstances indicate that the carrying amount may exceed its fair value (the "impairment test") in accordance with SFAS No. 142, "Goodwill and Other Intangible Assets."

If we determine the value of our cable franchise rights is less than the carrying amount, we recognize an impairment charge for the difference between the estimated fair value and the carrying value of the assets. For the purpose of our impairment testing, we have grouped the recorded values of our various cable franchise rights into geographic regions. We evaluate these groups periodically to ensure impairment testing is performed at an appropriate level. We estimate the fair value of our cable franchise rights primarily based on a discounted cash flow analysis that involves significant judgment in developing individual assumptions for each of the geographic regions, including long-term growth rate and discount rate assumptions. We have not recorded any significant impairment charges as a result of our impairment testing.

We could record impairment charges in the future if there are changes in market conditions, operating results, federal or state regulations, or groupings of the geographic regions in which we test for impairment, in any such case that prevent us from recovering the carrying value of these cable franchise rights. At our last impairment test date, the amounts by which the estimated fair value of our cable franchise rights exceeded the carrying value for our geographic regions ranged from zero to in excess of \$2.0 billion. A 10% decline in the estimated fair value of the cable franchise rights for each of these regions would result in an impairment in three of these regions and an impairment charge of approximately \$540 million.

### Income Taxes

Our provision for income taxes is based on our current period income, changes in deferred income tax assets and liabilities, income tax rates and tax planning opportunities available in the jurisdictions in which we operate. From time to time, we engage in transactions in which the tax consequences may be subject to uncertainty. Examples of such transactions include business acquisitions and disposals, including like-kind exchanges of cable systems, issues related to consideration paid or received in connection with acquisitions, and certain financing transactions. Significant judgment is required in assessing and estimating the tax consequences of these transactions. We prepare and file tax returns based on our interpretation of tax laws and regulations, and we record estimates based on these judgments and interpretations.

In the normal course of business, our tax returns are subject to examination by various taxing authorities. Such examinations may result in future tax and interest assessments by these taxing authorities. We adjust our estimates periodically because of ongoing examinations by and settlements with the various taxing authorities, as well as changes in tax laws, regulations and precedent. The effects on our financial statements of income tax uncertainties that arise in connection with business combinations and those associated with entities acquired in business combinations are discussed in Note 2 to our consolidated financial statements. The consolidated tax provision of any given year includes adjustments to prior year income tax accruals that are considered appropriate and any related estimated interest. We believe that adequate accruals have been made for income taxes. Differences between the estimated and actual amounts determined upon ultimate resolution, individually or in the aggregate, are not expected to have a material adverse effect on our consolidated financial position, but could possibly be material to our consolidated results of operations or cash flow of any one period.

#### Legal Contingencies

We are subject to legal, regulatory and other proceedings and claims that arise in the ordinary course of our business and, in certain cases, those that we assume from an acquired entity in a business combination. We record an estimated liability for those proceedings and claims arising in the ordinary course of business based upon the probable and reasonably estimable criteria contained in SFAS No. 5, "Accounting for Contingencies." For those litigation contingencies assumed in a business combination, we record a liability based on estimated fair value when we can determine such fair value. We review outstanding claims with internal as well as external counsel to assess the probability and the estimates of loss. We reassess the risk of loss as new information becomes available, and we adjust liabilities as appropriate. The actual cost of resolving a claim may be substantially different from the amount of the liability recorded. Differences between the estimated and actual amounts determined upon ultimate resolution, individually or in the aggregate, are not expected to have a material adverse effect on our consolidated financial position, but could possibly be material to our consolidated results of operations or cash flow of any one period.

### **Report of Management**

### **Management's Report on Financial Statements**

Our management is responsible for the preparation, integrity and fair presentation of information in our consolidated financial statements, including estimates and judgments. The consolidated financial statements presented in this report have been prepared in accordance with accounting principles generally accepted in the United States. Our management believes the consolidated financial statements and other financial information included in this report fairly present, in all material respects, our financial condition, results of operations and cash flows as of and for the periods presented in this report. The consolidated financial statements have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

### Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. Our system of internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States.

Our internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets.
- Provide reasonable assurance that our transactions are recorded as necessary to permit preparation of our financial statements in
  accordance with accounting principles generally accepted in the United States, and that our receipts and expenditures are being
  made only in accordance with authorizations of our management and our directors.
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changes in conditions, effectiveness of internal controls over financial reporting may vary over time. Our system contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Our management conducted an evaluation of the effectiveness of the system of internal control over financial reporting based on the framework in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded that our system of internal control over financial reporting was effective as of December 31, 2006. Our management's assessment of the effectiveness of our internal control over financial reporting has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

### Audit Committee Oversight

The Audit Committee of the Board of Directors, which is comprised solely of independent directors, has oversight responsibility for our financial reporting process and the audits of our consolidated financial statements and internal control over financial reporting. The Audit Committee meets regularly with management and with our internal auditors and independent registered public accounting firm (collectively, the "auditors") to review matters related to the quality and integrity of our financial reporting, internal control over financial reporting (including compliance matters related to our Code of Ethics and Business Conduct), and the nature, extent, and results of internal and external audits. Our auditors have full and free access and report directly to the Audit Committee. The Audit Committee recommended, and the Board of Directors approved, that the audited consolidated financial statements be included in this Annual Report.

Brian L. Roberts Chairman and CEO

John R. Alchin Executive Vice President, Co-Chief Financial Officer and Treasurer

Lawrence S. Smith Executive Vice President and Co-Chief Financial Officer

Jamence & Salva

Lawrence J. Salva Senior Vice President, Chief Accounting Officer and Controller

### Report of Independent Registered Public Accounting Firm

### Board of Directors and Stockholders Comcast Corporation Philadelphia, Pennsylvania

We have audited the accompanying consolidated balance sheet of Corncast Corporation and subsidiaries (the "Cornpany") as of December 31, 2006 and 2005, and the related consolidated statements of operations, cash flows and stockholders' equity for each of the three years in the period ended December 31, 2006. We also have audited management's assessment, included under the caption *Management's Report on Internal Control Over Financial Reporting*, that the Company maintained effective internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial statements, an opinion on management's assessment, and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting the design and operating effectiveness of internal control over financial reporting the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Comcast Corporation and subsidiaries as of December 31, 2006 and 2005, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2006, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, management's assessment that the Company maintained effective internal control over financial reporting as of December 31, 2006, is fairly stated, in all material respects, based on the criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Furthermore, in our opinion, the criteria established in *Internal Control – Integrated Framework* issued by the Control – Integrated Framework issued by the Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Committee of Sponsoring Organizations of the Treadway Commission.

As discussed in Note 10 to the consolidated financial statements, the Company adopted Statement of Financial Accounting Standards No. 123R, "Share Based Payments," effective January 1, 2006.

Delatte of Touche LLP

**Deloitte & Touche LLP** Philadelphia, Pennsylvania February 23, 2007

Corncast 2006 Annual Report

### Consolidated Balance Sheet

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December 31 (in millions, except share data)	2006	2005
Assets		
Current Assets		
Cash and cash equivalents	\$ 1,239	\$ 947
Investments	1,735	148
Accounts receivable, less allowance for doubtful accounts of \$157 and \$132	1,450	1,008
Other current assets	778	685
Current assets of discontinued operations		60
Total current assets	5,202	2, <b>84</b> 8
Investments	8,847	12,675
Property and equipment, net of accumulated depreciation of \$15,506 and \$12,079	21,248	17,704
Franchise rights	55,927	48,804
Goodwill	13,768	13,498
Other intangible assets, net of accumulated amortization of \$5,543 and \$4,635	4,881	3,118
Other noncurrent assets, net	532	635
Noncurrent assets of discontinued operations, net	-	4,118
	\$110,405	\$ 103,400
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable and accrued expenses related to trade creditors	\$ 2,862	\$ 2,239
Accrued salaries and wages	453	360
Other current liabilities	2.579	2,122
Deferred income taxes	563	2
Current portion of long-term debt	963	1,689
Current liabilities of discontinued operations	-	112
Total current liabilities	7,440	6,524
Long-term debt, less current portion	27,992	21,682
Deferred income taxes	27,089	27,370
Other noncurrent liabilities	6,476	6,920
Noncurrent liabilities of discontinued operations	-	28
Minority interest	241	657
Commitments and contingencies (Note 13)		001
Stockholders' equity		
Preferred stock – authorized 20,000,000 shares; issued, zero	-	_
Class A common stock, \$0.01 par value - authorized, 7,500,000,000 shares;		
issued, 2,425,818,710 and 2,410,511,727; outstanding, 2,060,357,960, and 2,045,050,977	24	24
Class A Special common stock, \$0.01 par value — authorized, 7,500,000,000 shares;		
issued 1,120,659,771 and 1,224,368,823; outstanding, 1,049,725,007 and 1,153,434,059	11	12
Class B common stock, \$0.01 par value – authorized, 75,000,000 shares;	••	
issued and outstanding, 9,444,375	_	_
Additional capital	42,401	42,989
Retained earnings	6,214	4,825
Treasury stock, 365,460,750 Class A common shares and 70,934,764 Class A Special common shares	(7,517)	(7,517
Accumulated other comprehensive income (loss)	34	(114
Total stockholders' equity	41,167	40,219
	71.107	+0,219

See notes to consolidated financial statements.

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# Consolidated Statement of Operations

Year Ended December 31 (in millions, except per share data)		2006		2005	_	2004
Revenues	\$2	24,966	\$ 2	21,075	_ \$1	9,221
Costs and Expenses						
Operating (excluding depreciation)		9,010		7,513		7,036
Selling, general and administrative		6,514		5,490		5,005
Depreciation		3,828		3,413		3,197
Amortization		995		1,138		1,154
		20,347		17,554	1	6,392
Operating income		4,619		3,521		2,829
Other Income (Expense)						
Interest expense		(2,064)		(1,795)		(1,874)
Investment income (loss), net		990		8 <del>9</del>		472
Equity in net (losses) income of affiliates, net		(124)		(42)		(81)
Other income (expense)	_	173		(53)		397
		(1,025)		(1,801)		(1,086)
Income from continuing operations before income taxes and minority interest		3,594		1,720		1,743
Income tax expense		(1,347)		(873)		(801)
Income from continuing operations before minority interest		2,247		847		942
Minority interest		(12)		(19)		(14)
Income from continuing operations		2,235		828		928
Income from discontinued operations, net of tax		103		100		42
Gain on discontinued operations, net of tax		195	-	-		
Net Income	\$	2,533	\$	928	\$	970
Basic earnings for common stockholders per common share						
Income from continuing operations	\$	0.71	\$	0.25	\$	0.28
Income from discontinued operations		0.03		0.03		0.01
Gain on discontinued operations		0.06		_		_
Net income	\$	0.80	\$	0.28	\$	0.29
Diluted earnings for common stockholders per common share						
Income from continuing operations	\$	0.70	\$	0.25	\$	0.28
Income from discontinued operations		0.03		0.03		0.01
Gain on discontinued operations		0.06		-		-
Net income	\$	0.79	\$	0.28	\$	0.29

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See notes to consolidated financial statements.

### Consolidated Statement of Cash Flows

Year Ended December 31 (in millions)	2006	2005	2004
Operating Activities			
Net income	\$ 2,533	\$ 928	\$ 970
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	3,828	3,413	3,197
Amortization	995	1,138	1,154
Depreciation and amortization of discontinued operations	139	253	272
Share-based compensation expenses	190	56	33
Noncash interest expense, net	<del>99</del>	8	33
Equity in net losses (income) of affiliates, net	124	42	81
(Gains) losses on investments and noncash other (income) expense, net	(979)	(54)	(703
Gain on discontinued operations	(736)	_	_
Noncash contribution expense	33	10	25
Minority interest	12	19	14
Deferred income taxes	674	183	531
Proceeds from sales of trading securities		-	680
Changes in operating assets and liabilities, net of effects of acquisitions and divestitures	S:		
Change in accounts receivable, net	(357)	(97)	(54
Change in accounts payable and accrued expenses related to trade creditors	560	(152)	(163
Change in other operating assets and liabilities	(497)	(912)	12
Net cash provided by (used in) operating activities	6,618	4,835	6,082
Financing Activities			
Proceeds from borrowings	7,497	3,978	1,030
Retirements and repayments of debt	(2,039)	(2,706)	(2,323
Repurchases of common stock	(2,347)	(2,313)	(1,361
Issuances of common stock	410	93	113
Other	25	15	25
Net cash provided by (used in) financing activities	3,546	(933)	(2,516
Investing Activities			
Capital expenditures	(4,395)	(3,621)	(3,660
Cash paid for intangible assets	(306)	(281)	(615
Acquisitions, net of cash acquired	(5,110)	(199)	(296
Proceeds from sales and restructuring of investments	2,720	861	228
Purchases of investments	(2,812)	(306)	(156
Proceeds from sales (purchases) of short-term investments, net	33	(86)	(1:
Proceeds from settlement of contract of acquired company	-	_	26
Other	(2)	(116)	(26
Net cash provided by (used in) investing activities	(9,872)	(3,748)	(4,512
Increase (decrease) in cash and cash equivalents	292	154	(946
Cash and cash equivalents, beginning of year	947	793	1,739
Cash and cash equivalents, end of year	\$ 1,239	\$ 947	\$ 793

See notes to consolidated financial statements.

# Consolidated Statement of Stockholders' Equity

							Accumulated Other Comprehensive Incorne (Loss)			
		non Stock		Additional	Retained	Treasury Stock	Unrealized Gains	Cumulative Translation	Minimum Pension	
(in millions)	A	Special		Capital	Earnings	At Cost	(Losses)	Adjustments	Liability	Total
Balance, January 1, 2004	\$24	\$14	\$	\$44,729	\$4,552	\$(7,517)	\$(112)	\$(28)	\$ —	\$41,662
Comprehensive income:										
Net income					970					
Reclassification adjustments for										
losses included in net income,										
net of deferred taxes							1			
Cumulative translation adjustments								20		
Total comprehensive income										991
Stock compensation plans				130	(73)					57
Repurchase and retirement of										
common stock		(1)		(757)	(558)					(1,316)
Employee stock purchase plan				28						28
Balance, December 31, 2004	24	13		44,130	4,891	(7,517)	(111)	(8)		41,422
Comprehensive income:					.,	(	( )	(-)		
Net income					928					
Unrealized gains on marketable					020					
securities, net of deferred										
taxes of \$11							20			
Reclassification adjustments for							20			
income included in net income,										
net of deferred taxes of \$2							(4)			
Minimum pension liability,							()			
net of deferred taxes of \$7									(12)	
Cumulative translation adjustments								1	(12)	
Total comprehensive income								•		933
Stock compensation plans				120						120
Repurchase and retirement of				120						120
common stock		(1)		(1,294)	(994)					(2,289)
		(1)		33	(554)					(2,209)
Employee stock purchase plan										
Balance, December 31, 2005	24	12	-	42,989	4,825	(7,517)	(95)	(7)	(12)	40,219
Comprehensive income:										
Net income					2,533					
Unrealized gains on marketable										
securities, net of deferred										
taxes of \$69							128			
Reclassification adjustments for										
income included in net income,										
net of deferred taxes of \$6							11			
Minimum pension liability,										
net of deferred taxes of \$4									7	
Cumulative translation adjustments								2		
Total comprehensive income										2,681
Stock compensation plans				604	(33)					571
Repurchase and retirement of										
common stock		(1)		(1,235)	(1,111)					(2,347)
Employee stock purchase plan				43						43

See notes to consolidated financial statements.

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We are a Pennsylvania corporation and were incorporated in December 2001. Through our predecessors, we have developed, managed and operated cable systems since 1963. We classify our operations in two reportable segments: Cable and Programming.

Our Cable segment is principally involved in the management and operation of cable systems in the United States. As of December 31, 2006, we served approximately 23.4 million video subscribers, 11 million high-speed Internet subscribers and 2.4 million phone subscribers. Our regional sports and news networks are included in our Cable segment because they derive a substantial portion of their revenues from our cable operations.

Our Programming segment operates our consolidated national programming networks: E!, Style, The Golf Channel, VERSUS (formerly known as OLN), G4 and AZN Television.

Our other businesses consist principally of Comcast Spectacor, which owns the Philadelphia Flyers, the Philadelphia 76ers and two large multipurpose arenas in Philadelphia, and manages other facilities for sporting events, concerts and other special events, and our corporate activities. We also own equity method investments in other programming networks.

### **Stock Split**

On January 31, 2007, our Board of Directors approved a threefor-two stock split in the form of a 50% stock dividend (the "Stock Split") payable on February 21, 2007, to shareholders of record on February 14, 2007. The stock dividend was in the form of an additional 0.5 share for every share held and was payable in shares of Class A common stock on the existing Class A common stock and payable in shares of Class A Special common stock on the existing Class A Special common stock and Class B common stock with cash being paid in lieu of fractional shares. Our stock began trading ex-dividend on February 22, 2007. The number of shares outstanding and related prices, per share amounts, share conversions and share-based data have been adjusted to reflect the Stock Split for all periods presented.

### **Basis of Consolidation**

The accompanying consolidated financial statements include (i) all of our accounts, (ii) all entities in which we have a controlling voting interest ("subsidiaries") and (iii) variable interest entities ("VIEs") required to be consolidated in accordance with generally accepted accounting principles in the United States ("GAAP"). We have eliminated all significant intercompany accounts and transactions among consolidated entities.

### **Our Use of Estimates**

We prepare our consolidated financial statements in conformity with GAAP, which requires us to make estimates and assumptions that affect the reported amounts and disclosures. Actual results could differ from those estimates. Estimates are used when accounting for various items, such as allowances for doubtful accounts, investments, derivative financial instruments, asset impairment, nonmonetary transactions, certain acquisition-related liabilities, programming-related liabilities, pensions and other postretirement benefits, revenue recognition, depreciation and amortization, income taxes and legal contingencies.

### **Fair Values**

We have determined the estimated fair value amounts presented in these consolidated financial statements using available market information and appropriate methodologies. However, considerable judgment is required in interpreting market data to develop the estimates of fair value. The estimates presented in these consolidated financial statements are not necessarily indicative of the amounts that we could realize in a current market exchange. The use of different market assumptions and/or estimation methodologies may have a material effect on the estimated fair value amounts. We based these fair value estimates on pertinent information available to us as of December 31, 2006 and 2005.

### **Cash Equivalents**

The carrying amounts of our cash equivalents approximate their fair value. Our cash equivalents principally consist of commercial paper, money market funds, U.S. government obligations and certificates of deposit with maturities of less than three months when purchased.

### Investments

We review our investment portfolio each reporting period to determine whether a decline in the market value is considered to be other than temporary. If an investment is deemed to have experienced an other than temporary decline below its cost basis, we reduce the carrying amount of the investment to its fair market value. We charge the impairment to earnings and establish a new cost basis for the investment.

Purchases of or proceeds from the sale of trading securities are classified as cash flows from operating activities, while cash flows from all other investment securities are classified as cash flows from investing activities.

We classify unrestricted publicly traded investments as availablefor-sale ("AFS") or trading securities and record them at fair value. For AFS securities, we record unrealized gains or losses resulting from changes in fair value between measurement dates as a component of other comprehensive income (loss), except when we consider declines in value to be other than temporary. These other than temporary declines are recognized as a component of investment income (loss), net. For trading securities, we record unrealized gains or losses resulting from changes in fair value between measurement dates as a component of investment income (loss), net. We recognize realized gains and losses associated with our fair value method investments using the specific identification method.

We use the equity method to account for investments in which we have the ability to exercise significant influence over the investee's operating and financial policies. Equity method investments are recorded at original cost and adjusted to recognize our proportionate share of the investee's net income or losses after the date of investment, amortization of basis differences, additional contributions made and dividends received, and impairment charges resulting from adjustments to fair value. We generally record our share of the investee's net income or loss one quarter in arrears due to the timing of our receipt of such information.

If a consolidated subsidiary or equity method investee issues additional securities that change our proportionate share of the entity, we recognize the change as a gain or loss in our consolidated statement of operations. In cases where gain realization is not assured, we record the gain to additional capital.

Restricted publicly traded investments and investments in privately held companies are stated at cost and adjusted for any known decrease in value (see Note 6).

### **Property and Equipment**

Property and equipment are stated at cost. We capitalize improvements that extend asset lives and expense other repairs and maintenance charges as incurred. For assets that are sold or retired, we remove the applicable cost and accumulated depreciation and, unless the gain or loss on disposition is presented separately, we recognize it as a component of depreciation expense.

We capitalize the costs associated with the construction of our cable transmission and distribution facilities and new service installations. Costs include all direct labor and materials, as well as various indirect costs.

We record depreciation using the straight-line method over estimated useful lives. Our significant components of property and equipment are as follows:

December 31 (in millions)	Useful Life	2006	2005
Cable transmission and distribution facilities Buildings and building	2-15 years	\$ 31,870	\$ 25,737
improvements	5-40 years	1,366	1,279
Land	-	163	148
Other	3-10 years	3,355	2,619
Property and equipment, a	36,754	29,783	
Less: accumulated deprec	(15,506)	(12,079)	
Property and equipment, r	net	\$ 21,248	\$ 17,704

#### **Intangible Assets**

Cable franchise rights represent the value attributed to agreements with local authorities that allow access to homes in cable service areas acquired in connection with business combinations. We do not amortize cable franchise rights because we have determined that they have an indefinite life. We reassess this determination periodically for each franchise based on the factors included in Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets" ("SFAS No. 142"). Costs we incur in negotiating and renewing cable franchise agreements are included in other intangible assets and are principally amortized on a straightline basis over the term of the franchise renewal period.

Other intangible assets consist principally of franchise-related customer relationships acquired in business combinations, cable and satellite television distribution rights, cable franchise renewal costs, contractual operating rights, computer software, programming agreements and rights, patents and other technology rights, and noncompetition agreements. We record these costs as assets and amortize them on a straight-line basis over the term of the related agreements or estimated useful life.

Our Programming subsidiaries enter into multi-year license agreements with various cable and satellite distributors for distribution of their respective programming ("distribution rights"). We capitalize distribution rights and amortize them on a straight-line basis over the term of the related license agreements. We classify the amortization of these distribution rights as a reduction of revenue unless the Programming subsidiary receives, or will receive, an identifiable benefit from the cable or satellite system distributor separate from the fee paid for the distribution right, in which case we recognize the fair value of the identified benefit as an operating expense in the period in which it is received.

We capitalize direct development costs associated with internal-use software, including external direct costs of material and services, and payroll costs for employees devoting time to these software projects. We include these costs within other intangible assets and amortize them over a period not to exceed five years, beginning when the asset is substantially ready for use. We expense maintenance and training costs, as well as costs incurred during the preliminary project stage, as they are incurred. We capitalize initial operating system software costs and amortize them over the life of the associated hardware.

See Note 7 for the ranges of useful lives of our intangible assets.

### Asset Impairments

We periodically evaluate the recoverability and estimated lives of our property and equipment and intangible assets subject to amortization in accordance with SFAS No.144, "Accounting for the Impairment or Disposal of Long-Lived Assets" ("SFAS No. 144"). Our evaluations occur whenever events or changes in circumstances indicate that the carrying amount may not be recoverable or the useful life has changed, and they include analyses based on the cash flows generated by the underlying assets and profitability information, including estimated future operating results, trends or other determinants of fair value. If the total of the expected future undiscounted cash flows is less than the carrying amount of the asset, we recognize a loss for the difference between the fair value and the carrying value of the asset. Unless presented separately, the loss is included as a component of either depreciation expense or amortization expense, as appropriate.

We evaluate the recoverability of our franchise rights annually, or more frequently whenever events or changes in circumstances indicate that the assets might be impaired. We estimate the fair value of our cable franchise rights utilizing various valuation techniques, including discounted cash flow analysis, multiples of operating income before depreciation and amortization generated by the underlying assets, analyses of current market transactions and profitability information. If the value of our cable franchise rights determined by these evaluations is less than the carrying amount, we recognize an impairment charge for the difference between the estimated fair value and the carrying value of the assets. When we perform our impairment test, we group the recorded values of our various cable franchise rights into geographic regions. We evaluate these groups periodically to ensure impairment testing is performed at an appropriate level. We have not recorded any significant impairment charges as a result of our impairment testing.

Goodwill is the excess of the acquisition cost of an acquired entity over the fair value of the identifiable net assets acquired. We evaluate the recoverability of our goodwill annually, or more frequently whenever events or changes in circumstances indicate that the asset might be impaired. We perform the impairment assessment of our goodwill one level below the business segment level, except for our Cable business. In our Cable business, since components one level below the segment level are not separate reporting units and have similar economic characteristics, we aggregate the components into one reporting unit at the Cable segment level.

### **Asset Retirement Obligations**

SFAS No. 143, "Accounting for Asset Retirement Obligations," as interpreted by Financial Accounting Standards Board ("FASB") Interpretation ("FIN") No. 47, "Accounting for Conditional Asset Retirement Obligations — an Interpretation of FASB Statement No. 143," requires that a liability be recognized for an asset retirement obligation in the period in which it is incurred if a reasonable estimate of fair value can be made.

Certain of our franchise and lease agreements contain provisions requiring us to restore facilities or remove property in the event that the franchise or lease agreement is not renewed. We expect to continually renew our franchise agreements; however, a remote possibility exists that such agreements could terminate unexpectedly, which could result in us incurring significant expense in complying with the restoration or removal provisions under such agreements. No such liabilities have been recorded in our consolidated financial statements as the obligations related to the restoration and removal provisions contained in our agreements or any disposal obligations related to our properties are not material to our consolidated financial statements or cannot be reasonably estimated.

### **Revenue Recognition**

Cable revenues are principally derived from subscriber fees received for our video, high-speed Internet and phone services ("cable services") and from advertising. We recognize revenues from cable services as the service is provided. We manage credit risk by screening applicants through the use of credit bureau data. If a subscriber's account is delinquent, various measures are used to collect outstanding amounts, including termination of the subscriber's cable service. We recognize advertising revenue at estimated realizable values when the advertising is aired. Installation revenues obtained from the connection of subscribers to our cable systems are less than related direct selling costs. Therefore, such revenues are recognized as connections are completed. Revenues earned from other sources are recognized when services are provided or events occur. Under the terms of our franchise agreements, we are generally required to pay to the local franchise authority up to 5% of our gross revenues earned from providing cable services within the local franchise area. We normally pass these fees through to our cable subscribers and classify the fees as a component of revenues.

Our Programming businesses recognize revenue from cable and satellite distributors as programming is provided, generally pursuant to multiyear distribution agreements. From time to time these agreements expire while programming continues to be provided to the operator based on interim arrangements while the parties negotiate new contractual terms. Revenue recognition is generally limited to current payments being made by the operator, typically pursuant to the prior contract terms, until a new contract is negotiated, sometimes with effective dates that affect prior periods. Differences between actual amounts determined upon resolution of negotiations and amounts recorded during these interim arrangements are recorded in the period of resolution.

Advertising revenue for our Programming businesses is recognized in the period in which commercial announcements or programs are aired. In some instances, our Programming businesses guarantee viewer ratings for their programming. Revenue is deferred to the extent of an estimated shortfall in the ratings. Such shortfalls are primarily settled by providing additional advertising time, at which point the revenue is recognized.

### **Cable Programming Expenses**

Cable programming expenses are the fees we pay to programming networks to license the programming we package, offer and distribute to our cable subscribers. Programming is acquired for distribution to our cable subscribers, generally pursuant to multiyear distribution agreements, with rates typically based on the number of subscribers that receive the programming. From time to time these contracts expire and programming continues to be provided based on interim arrangements while the parties negotiate new contractual terms, sometimes with effective dates that affect prior periods. While payments are typically made under the prior contract terms, the amount of our programming expenses recorded during these interim arrangements is based on our estimates of the ultimate contractual terms expected to be negotiated.

Our cable subsidiaries have received or may receive incentives from programming networks for the licensing of their programming. We classify the deferred portion of these fees within noncurrent liabilities and recognize the fees as a reduction of programming expenses (included in operating expenses) over the term of the contract.

### Share-Based Compensation

Prior to January 1, 2006, we accounted for our share-based compensation plans in accordance with the provisions of Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB No. 25"), as permitted by SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS No. 123"), and accordingly did not recognize compensation expense for stock options with an exercise price equal to or greater than the market price of the underlying stock at the date of grant.

Effective January 1, 2006, we adopted SFAS No. 123R, "Share-Based Payment" ("SFAS No.123R"), using the Modified Prospective Approach. Under the Modified Prospective Approach, the amount of compensation cost recognized includes: (i) compensation cost for all share-based payments granted prior to but not yet vested as of January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No.123 and (ii) compensation cost for all share-based payments granted or modified subsequent to January 1, 2006, based on the estimated fair value at the date of grant or subsequent modification date in accordance with the provisions of SFAS No.123R.

SFAS No. 123R also required us to change the classification, in our consolidated statement of cash flows, of any income tax benefits realized upon the exercise of stock options or issuance of restricted share unit awards in excess of that which is associated with the expense recognized for financial reporting purposes. These amounts are presented as a financing cash inflow rather than as a reduction of income taxes paid in our consolidated statement of cash flows. See Note 10 for further details regarding the adoption of SFAS No. 123R.

### **Postretirement and Postemployment Benefits**

We charge to operations the estimated costs of retiree benefits and benefits for former or inactive employees, after employment but before retirement, during the years the employees provide services (see Note 9).

### **Income Taxes**

We recognize deferred tax assets and liabilities for temporary differences between the financial reporting basis and the tax basis of our assets and liabilities and the expected benefits of utilizing net operating loss carryforwards. The impact on deferred taxes of changes in tax rates and laws, if any, applied to the years during which temporary differences are expected to be settled, is reflected in the consolidated financial statements in the period of enactment (see Note 11).

We account for income tax uncertainties that arise in connection with business combinations and those that are associated with entities acquired in business combinations in accordance with Emerging Issues Task Force ("EITF") Issue No. 93-7, "Uncertainties Related to Income Taxes in a Purchase Business Combination." Deferred tax assets and liabilities are recorded as of the date of a business combination and are based on our estimate of the ultimate tax basis that will be accepted by the various taxing authorities. Liabilities for contingencies associated with prior tax returns filed by the acquired entity are recorded based on our estimate of the ultimate settlement that will be accepted by the various taxing authorities. Estimated interest expense on these liabilities subsequent to the acquisition is reflected in our consolidated income tax provision. We adjust these deferred tax accounts and liabilities periodically to reflect revised estimated tax bases and any estimated settlements with the various taxing authorities. The effect of these adjustments is generally applied to goodwill except for post-acquisition interest expense, which is recognized as an adjustment of income tax expense.

### **Derivative Financial Instruments**

We use derivative financial instruments for a number of purposes. We manage our exposure to fluctuations in interest rates by entering into instruments, which may include interest rate exchange agreements ("swaps"), interest rate lock agreements ("rate locks"), interest rate cap agreements ("caps") and interest rate collar agreements ("collars"). We manage our exposure to fluctuations in the value of some of our investments by entering into equity collar agreements ("equity collars") and equity put option agreements ("equity put options"). We are also a party to equity warrant agreements ("equity warrants"). We have issued indexed debt instruments ("Exchangeable Notes" and "ZONES") and have entered into prepaid forward sale agreements ("prepaid forward sales") whose value, in part, is derived from the market value of certain publicly traded common stock. We have also sold call options on some of our investments in equity securities. We use equity hedges to manage exposure to changes in equity prices associated with stock appreciation rights of acquired companies. These equity hedges are recorded at fair value based on market quotes.

For derivative instruments designated and effective as fair value hedges, such as fixed to variable swaps, changes in the fair value of the derivative instrument are substantially offset in the consolidated statement of operations by changes in the fair value of the hedged item. For derivative instruments designated as cash flow hedges, such as variable to fixed swaps and rate locks, the effective portion of any hedge is reported in other comprehensive income (loss) until it is recognized in earnings during the same period in which the hedged item affects earnings. The ineffective portion of all hedges is recognized each period in current earnings. Changes in the fair value of derivative instruments that are not designated as a hedge are recorded each period in current earnings.

When a derivative instrument designated as a fair value hedge is terminated, sold, exercised or has expired, any gain or loss is deferred and recognized in earnings over the remaining life of the hedged item. When a hedged item is settled or sold, the adjustment in the carrying amount of the hedged item is recognized in earnings. When hedged variable-rate debt is settled, the previously deferred effective portion of the hedge is written off similar to debt extinguishment costs.

Equity warrants and equity collars are adjusted to estimated fair value on a current basis with the result included in investment income (loss), net in our consolidated statement of operations.

Derivative instruments embedded in other contracts, such as our Exchangeable Notes, ZONES and prepaid forward sales, are separated into their host and derivative financial instrument components. The derivative component is recorded at its estimated fair value in our consolidated balance sheet, and changes in estimated fair value are recorded in investment income (loss), net in our consolidated statement of operations.

All derivative transactions must comply with our Board-authorized derivatives policy. We do not hold or issue any derivative financial instruments for speculative or trading purposes and are not a party to leveraged derivative instruments (see Note 8). We manage the credit risks associated with our derivative financial instruments through the evaluation and monitoring of the creditworthiness of the counterparties. Although we may be exposed to losses in the event of nonperformance by the counterparties, we do not expect such losses, if any, to be significant.

We periodically examine the instruments we use to hedge exposure to interest rate and equity price risks to ensure that the instruments are matched with underlying assets or liabilities, reduce our risks relating to interest rates or equity prices and, through market value and sensitivity analysis, maintain a high correlation to the risk inherent in the hedged item. For those instruments that do not meet the above criteria, variations in their fair value are reflected on a current basis in our consolidated statement of operations.

### Securities Lending Transactions

We may enter into securities lending transactions in which we require the borrower to provide cash collateral equal to the value of the loaned securities, as adjusted for any changes in the value of the underlying loaned securities. Loaned securities for which we maintain effective control are included in investments in our consolidated balance sheet.

### SFAS No. 155

In February 2006, the FASB issued SFAS No. 155, "Accounting for Certain Hybrid Financial Instruments — an Amendment of FASB Statements No. 133 and 140" ("SFAS No. 155"). SFAS No. 155 allows financial instruments that contain an embedded derivative and that otherwise would require bifurcation to be accounted for as a whole on a fair value basis, at the holder's election. SFAS No. 155 also clarifies and amends certain other provisions of SFAS No. 133 and SFAS No. 140. This statement is effective for all financial instruments acquired or issued in fiscal years beginning after September 15, 2006. We do not expect SFAS No. 155 to have a material impact on our consolidated financial statements.

### SFAS No. 157

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements" ("SFAS No. 157"). SFAS No. 157 defines fair value, establishing a framework for measuring fair value and expands disclosure about fair value measurements. SFAS No. 157 is effective for fiscal years beginning after November 15, 2007. We do not expect SFAS No. 157 to have a material impact on our consolidated financial statements.

### **SFAS No. 158**

In September 2006, the FASB issued SFAS No. 158, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans" ("SFAS No. 158"). SFAS No. 158 requires companies to recognize in their statement of financial position an asset for a plan's overfunded status or a liability for a plan's underfunded status and to measure a plan's assets and its obligations that determine its funded status as of the end of the company's fiscal year. Additionally, SFAS No. 158 requires companies to recognize changes in the funded status of a defined benefit postretirement plan in the year that the changes occur and to report these in other comprehensive income (loss). The application of SFAS No. 158 did not have a material impact on our consolidated financial statements.

### **FASB Interpretation No. 48**

In July 2006, the FASB issued FIN 48, "Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No. 109" ("FIN 48"). FIN 48 clarifies the recognition threshold and measurement of a tax position taken on a tax return. FIN 48 is effective for fiscal years beginning after December 15, 2006. FIN 48 also requires expanded disclosure with respect to the uncertainty in income taxes. We do not expect FIN 48 to have a material impact on our consolidated financial statements.

### EITF issue No. 06-1

In June 2006, the EITF reached a consensus on EITF Issue No. 06-1, "Accounting for Consideration Given by a Service Provider to Manufacturers or Resellers of Specialized Equipment Necessary for an End-Customer to Receive Service from the Service Provider" ("EITF 06-1"). EITF 06-1 provides guidance on the accounting for consideration given by a vendor to a customer. The provisions of EITF 06-1 will be effective for us as of December 31, 2007. We do not expect EITF 06-1 to have a material impact on our consolidated financial statements.

### EITF issue No. 06-3

In June 2006, the EITF reached a consensus on EITF Issue No. 06-3, "How Taxes Collected from Customers and Remitted to Governmental Authorities Should Be Presented in the Income Statement (That Is, Gross versus Net Presentation)" ("EITF 06-3"). EITF 06-3 provides that the presentation of taxes assessed by a governmental authority that is directly imposed on a revenue-producing transaction between a seller and a customer on either a gross basis (included in revenues and costs) or on a net basis (excluded from revenues) is an accounting policy decision that should be disclosed. The provisions of EITF 06-3 will be effective for us as of January 1, 2007. We do not expect EITF 06-3 to have a material impact on our consolidated financial statements.

### SAB No. 108

In September 2006, the Securities Exchange Commission Staff issued Staff Accounting Bulletin No. 108, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in the Current Year Financial Statements" ("SAB No. 108"). SAB No. 108 requires the use of two alternative approaches in quantitatively evaluating materiality of misstatements. If the misstatement as quantified under either approach is material to the current year financial statements, the misstatement must be corrected. If the effect of correcting the prior year misstatements, if any, in the current year income statement is material, the prior year financial statements should be corrected. In the year of adoption (fiscal years ending after November 15, 2006, or calendar year 2006 for us), the misstatements may be corrected as an accounting change by adjusting opening retained earnings rather than including the adjustment in the current year income statement. Upon completing our evaluation of the requirements of SAB No. 108, we determined it did not affect our consolidated financial statements.

Basic earnings for common stockholders per common share ("Basic EPS") is computed by dividing net income for common stockholders by the weighted-average number of common shares outstanding during the period.

Our potentially dilutive securities include potential common shares related to our stock options and restricted share units. Diluted earnings for common stockholders per common share ("Diluted EPS") considers the impact of potentially dilutive securities except in periods in which there is a loss because the inclusion of the potential common shares would have an antidilutive effect. Diluted EPS excludes the impact of potential common shares related to our stock options in periods in which the option exercise price is greater than the average market price of our Class A common stock and our Class A Special common stock during the period (see Note 10).

Diluted EPS for 2006, 2005 and 2004 excludes approximately 116 million, 126 million and 154 million, respectively, of potential common shares related to our share-based compensation plans because the inclusion of the potential common shares would have an antidilutive effect.

The following table reconciles the numerator and denominator of the computations of Diluted EPS from continuing operations for the years presented (adjusted to reflect the Stock Split):

		2006			2005			2004		
Year Ended December 31 (in millions, except per share data)	income	Shares	Per Share Amount	income	Shares	Per Share Amount	income	Shares	Per Share Amount	
Basic EPS Effect of Dilutive Securities Assumed exercise or issuance of	\$ 2,235	3,160	\$0.71	\$ 828	3,295	\$0.25	\$ 928	3,360	\$ 0.28	
shares relating to stock plans		20			17			15		
Diluted EPS	\$ 2,235	3,180	\$0.70	\$ 828	3,312	\$ 0.25	\$ 928	3,375	\$ 0.28	

### **Adelphia and Time Warner Transactions**

In April 2005, we entered into an agreement with Adelphia Communications ("Adelphia") in which we agreed to acquire certain assets and assume certain liabilities of Adelphia (the "Adelphia Acquisition"). At the same time, we and Time Warner Cable Inc. and certain of its affiliates ("TWC") entered into several agreements in which we agreed to (i) have our interest in Time Warner Entertainment Company, L.P. ("TWE") redeemed, (ii) have our interest in TWC redeemed (together with the TWE redemption, the "Redemptions"), and (iii) exchange certain cable systems acquired from Adelphia and certain Comcast cable systems with TWC (the "Exchanges"). On July 31, 2006, these transactions were completed. We collectively refer to the Adelphia Acquisition, the Redemptions and the Exchanges as the "Adelphia and Time Warner transactions." Also in April 2005, Adelphia and TWC entered into an agreement for the acquisition of substantially all of the remaining cable system assets and the assumption of certain of the liabilities of Adelphia.

The Adelphia and Time Warner transactions, which are described in more detail below, resulted in a net increase of 1.7 million video subscribers, a net cash payment by us of approximately \$1.5 billion and the disposition of our ownership interests in TWE and TWC and the assets of two cable system partnerships.

The Adelphia and Time Warner transactions added cable systems located in 16 states (California, Colorado, Connecticut, Florida, Georgia, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, Oregon, Pennsylvania, Tennessee, Vermont, Virginia and West Virginia). We expect that the larger systems will result in economies of scale.

We paid approximately \$3.6 billion in cash for the acquisition of Adelphia's interest in two cable system partnerships and certain Adelphia cable systems and to satisfy certain related liabilities. Approximately \$2.3 billion of the amount paid was related to the acquisition of Adelphia's interest in Century – TCl California Communications, L.P. ("Century") and Parnassos Communications, L.P. ("Parnassos" and together with Century, the "Partnerships"). We held a 25% interest in Century and a 33.33% interest in Parnassos. Our prior interests in the Partnerships were accounted for as cost method investments. After acquiring Adelphia's interests in the Partnerships, we transferred the cable systems held by the Partnerships to TWC in the Exchanges, as discussed further below.

In addition to acquiring Adelphia's interest in Century and Parnassos, we acquired cable systems from Adelphia for approximately \$600 million in cash that we continue to own and operate.

Our 4.7% interest in TWE was redeemed in exchange for 100% of the equity interests in a subsidiary of TWE holding cable systems with a fair value of approximately \$600 million and approximately \$147 million in cash. Our 17.9% interest in TWC was redeemed in exchange for 100% of the capital stock of a subsidiary of TWC holding cable systems with a fair value of approximately \$2.7 billion and approximately \$1.9 billion in cash. Our ownership interests in TWE and TWC were accounted for as cost method investments.

We recognized a gain of approximately \$535 million, in the aggregate, on the Redemptions, which is included in investment income (loss), net.

The estimated fair value of the cable systems we transferred to and received from TWC was approximately \$8.6 billion and \$8.5 billion, respectively. TWC made net cash payments aggregating approximately \$67 million to us for certain preliminary adjustments related to the Exchanges.

The cable systems we transferred to TWC included our previously owned cable systems located in Los Angeles, Cleveland and Dallas ("Comcast Exchange Systems") and the cable systems held by Century and Parnassos. The operating results of the Comcast Exchange Systems are reported as discontinued operations for all periods and are presented in accordance with SFAS No. 144 (see "Discontinued Operations" below).

As a result of the Exchanges, we recognized a gain on the sale of discontinued operations of \$195 million, net of tax of \$541 million and a gain on the sale of the Century and Parnassos cable systems of approximately \$111 million that is included within investment income (loss), net.

The cable systems that TWC transferred to us in the Exchanges included cable systems that TWC acquired from Adelphia in its asset purchase from Adelphia and TWC's Philadelphia cable system.

The cable systems acquired in the Adelphia and Time Warner transactions were accounted for in accordance with SFAS No. 141, "Business Combinations" ("SFAS No. 141"). The results of operations for the acquired cable systems have been included in our consolidated financial statements since the acquisition date (July 31, 2006) and are reported in our Cable segment. As a result of the redemption of our investment in TWC and the exchange of the cable systems held by Century and Parnassos, we reversed deferred tax liabilities of approximately \$760 million, primarily related to the excess of tax basis of the assets acquired over the tax basis of the assets exchanged and reduced the amount of goodwill and other noncurrent assets that would have otherwise been recorded in the acquisition. Substantially all of the goodwill recorded is expected to be amortizable for tax purposes. The purchase price allocation is preliminary and subject to refinement as valuations are finalized. The weighted-average amortization period of the franchise-related customer relationship intangible assets acquired was seven years.

The following represents the purchase price allocation to assets acquired and liabilities assumed, exclusive of the cable systems held by Century and Parnassos and transferred to TWC, as a result of the Adelphia and Time Warner transactions:

(in millions)	2006
Property and equipment	\$ 2,692
Franchise-related customer relationships	1,648
Cable franchise rights	6,842
Goodwill	271
Other assets	111
Total liabilities	(397)
Net assets acquired	\$11,167

As discussed above, the operating results of the Comcast Exchange Systems transferred to TWC are reported as discontinued operations for all periods and are presented in accordance with SFAS No. 144. The following represents the operating results of the Comcast Exchange Systems through the closing date of the Exchanges (July 31, 2006):

(in millions)	2006	2005		2004
Revenues	\$ 734	\$1,180	\$1	,086
Income before income taxes	121	159		67
Income tax expense	(18)	(59)		(25)
Net income	\$ 103	\$ 100	\$	42

The following unaudited pro forma information has been presented as if the Adelphia and Time Warner transactions occurred on January 1, 2005. This information is based on historical results of operations, adjusted for purchase price allocations and is not necessarily indicative of what the results would have been had we operated the entities since January 1, 2005.

Year Ended December 31 (in millions)		2006		2005
Revenues	.\$	26,616	\$2	23,672
Income from continuing operations		2,284		770
Income from discontinued operations,				
net of tax		103		100
Gain on discontinued operations,				
net of tax		195		_
Net income	\$	2,582	\$	870
Basic earnings for common				
stockholders per common share	\$	0.82	\$	0.26
Diluted earnings for common				
stockholders per common share	_\$	0.81	\$	0.26

### Texas and Kansas City Cable Partnership

In July 2006, we initiated the dissolution of Texas and Kansas City Cable Partners ("TKCCP"), our 50%-50% cable system partnership with TWC. Once the dissolution was triggered, the non-triggering party had the right to choose and take full ownership of one of two pools of TKCCP's cable systems together with any debt allocated to such asset pool by the triggering partner. One pool consisted of cable systems serving Houston, Texas ("Houston Asset Pool") and the other pool consisted of cable systems serving Kansas City, south and west Texas, and New Mexico ("Kansas City Asset Pool").

In July 2006, we notified TWC of our election to dissolve TKCCP and the allocation of all of its debt, which totaled approximately \$2 billion as of July 1, 2006, to the Houston Asset Pool. In August 2006, TWC notified us that it selected the Kansas City Asset Pool and as a result, we were to receive the Houston Asset Pool. The \$2 billion of debt allocated to the Houston Asset Pool was required to be refinanced within 60 days of the August 1, 2006, selection date. This debt included \$600 million owed to each partner (for an aggregate of \$1.2 billion). We refinanced this debt in October 2006 (see Note 8). To be consistent with our management reporting presentation, the results of operations of the Houston Asset Pool have been reported in our Cable segment since August 1, 2006. The operating results of the Houston Asset Pool are eliminated in our consolidated financial statements (see Note 14).

In January 2007, the distribution of assets by TKCCP was completed and we received the Houston Asset Pool. We will account for the distribution of assets by TKCCP as a sale of our 50% interest in the Kansas City Asset Pool in exchange for acquiring an additional 50% interest in the Houston Asset Pool and expect to record a gain on this transaction.

#### **E! Entertainment Television**

In November 2006, we acquired the 39.5% of E! Entertainment Television (which operates the E! and Style programming networks) that we did not already own for approximately \$1.2 billion. We have historically consolidated the results of operations of E! Entertainment Television. We allocated the purchase price to intangibles and goodwill.

### Susquehanna

In April 2006, we acquired the cable systems of Susquehanna Cable Co. and its subsidiaries ("Susquehanna") for a total purchase price of approximately \$775 million. The Susquehanna systems acquired are located primarily in Pennsylvania, New York, Maine, and Mississippi.

Prior to the acquisition, we held an approximate 30% equity ownership interest in Susquehanna that we accounted for as an equity method investment. On May 1, 2006, Susquehanna Cable Co. redeemed the approximate 70% equity ownership interest in Susquehanna held by Susquehanna Media Co., which resulted in Susquehanna becoming 100% owned by us. The results of operations of the Susquehanna cable systems have been included in our consolidated financial statements since the acquisition date and are reported in our Cable segment. We allocated the purchase price to property and equipment, franchise-related customer relationship intangibles, nonamortizing cable franchise rights and goodwill. The acquisition of the Susquehanna cable systems was not significant to our consolidated financial statements for 2006.

## Motorola

In March 2005, we entered into two joint ventures with Motorola under which we are developing and licensing next-generation programming access security (known as "conditional access") technology for cable systems and related products. One of the ventures will license such products to equipment manufacturers and other cable companies. The other venture will provide us greater participation in the design and development of conditional access technology for our cable systems. In addition to funding approximately 50% of the annual cost requirements, we have paid \$20 million to Motorola and have committed to pay up to \$80 million to Motorola over a four-year period based on the achievement of certain milestones. Motorola contributed licenses to conditional access and related technology to the ventures.

These two ventures are both considered VIEs and we have consolidated both of these ventures as we are considered the primary beneficiary. Accordingly, we have recorded approximately \$190 million in intangible assets, of which we recorded a charge of approximately \$20 million related to in-process research and development in 2005 that has been included in amortization expense.

# Liberty Media Exchange Agreement

In July 2004, we exchanged approximately 120 million shares of Liberty Media Corporation ("Liberty Media") Series A common stock that we held, valued at approximately \$1.022 billion based upon the price of Liberty Media common stock on the closing date of the transaction with Liberty Media for 100% of the stock of Liberty's subsidiary, Encore ICCP, Inc. Encore's assets consisted of cash of approximately \$547 million, a 10.4% interest in E! Entertainment Television and 100% of International Channel Networks (which operates AZN Television). We also received all of Liberty Media's rights, benefits and obligations under the TCI Music contribution agreement, which resulted in the resolution of all pending litigation between Liberty Media and us regarding the contribution agreement. The exchange was structured as a tax-free transaction. We allocated the value of the shares exchanged in the transaction among cash, our additional investment in El Entertainment Television, International Channel Networks and the resolution of the litigation related to the contribution agreement. The effects of our acquisition of the additional interest in El Entertainment Television and our acquisition of International Channel Networks have been reflected in our consolidated statement of operations from the date of the transaction.

# TechTV

In May 2004, we completed the acquisition of TechTV Inc. by acquiring all outstanding common and preferred stock of TechTV from Vulcan Programming Inc. for approximately \$300 million in cash. Substantially all of the purchase price has been recorded to intangible assets and is being amortized over a period of 2 to 22 years. On May 28, 2004, G4 and TechTV began operating as one network. The effects of our acquisition of TechTV have been reflected in our consolidated statement of operations from the date of the transaction. We have classified G4 as part of our Programming segment.

# Gemstar

In March 2004, we entered into a long-term, non-exclusive patent license and distribution agreement with Gemstar-TV Guide International ("Gemstar") in exchange for a one-time payment of \$250 million to Gemstar. If our total subscribers exceed a specified threshold, we will be required to make additional one-time payments to Gemstar for each subscriber in excess of such threshold. This agreement allows us to utilize Gemstar's intellectual property and technology and the TV Guide brand and content on our interactive program guides. We have allocated the \$250 million amount paid based on the fair value of the components of the contract to various intangible and other assets, which are being amortized over a period of 3 to 12 years. In addition, we and Gemstar formed an entity to develop and enhance interactive programming guides.

December 31 (in millions)	_	2006		2005
Fair value method				
Cablevision Systems Corporation	\$	146	\$	120
Discovery Holding Company		161		152
Embarq Corporation		69		_
Liberty Capital		490		_
Liberty Global		439		336
Liberty Interactive		539		_
Liberty Media		_		787
Sprint Nextel		493		614
Time Warner		1,052		994
Vodafone		61		54
Other		63		90
		3,513		3,147
Equity method, principally cable-related		5,394		2,823
Cost method, principally AirTouch as of				
December 31, 2006, and				
Time Warner Cable and AirTouch as of				
December 31, 2005		1,675		6,853
Total investments	1	0,582	1	2,823
Less current investments		1,735		148
Noncurrent investments	\$	8,847	\$1	2,675

# Fair Value Method

We hold unrestricted equity investments in publicly traded companies that we account for as AFS or trading securities. The net unrealized pretax gains on investments accounted for as AFS securities as of December 31, 2006 and 2005, of \$254 million and \$56 million, respectively, have been reported in our consolidated balance sheet principally as a component of accumulated other comprehensive income (loss), net of related deferred income taxes of \$89 million and \$19 million, respectively.

The cost, fair value and unrealized gains and losses related to our AFS securities are as follows:

Year Ended December 31 (in millions)	2006	2005
Cost	\$ 936	\$1,104
Unrealized gains	254	62
Unrealized losses	_	(6)
Fair value	\$ 1,190	\$1,160

Proceeds from the sales of AFS securities for the years ended December 31, 2006, 2005 and 2004 were \$209 million, \$490 million and \$67 million, respectively. Gross realized gains on these sales for the years ended December 31, 2006, 2005 and 2004 were \$59 million, \$18 million and \$10 million, respectively. Sales of AFS securities for the years ended December 31, 2006 and 2005 consisted principally of sales of Time Warner common stock.

As of December 31, 2006 and 2005, approximately \$1.879 billion and \$1.496 billion, respectively, of our fair value method securities support our obligations under our exchangeable notes or prepaid forward contracts.

In June 2005, we, through a majority-owned partnership, entered into a prepaid forward sale that terminates in 2013 of approximately 5.1 million shares of Cablevision Systems Corporation ("Cablevision") Class A common stock for cash proceeds of \$114 million. We have designated the derivative component of the prepaid forward as a fair value hedge of the related Cablevision shares. Accordingly, the mark to market adjustment on 2.9 million of the Cablevision shares held by us and classified as AFS securities will be recorded to investment income (loss), net over the term of the prepaid forward.

In July 2005, we received 10 million shares of Discovery Holding Company ("Discovery") Series A common stock in connection with the spin-off by Liberty Media of Discovery. All of these shares collateralize a portion of our Liberty Media prepaid forward sales obligation that terminates in 2014.

In May 2006, we received approximately 1.3 million shares of Embarg Corporation ("Embarg") common stock in connection with the spin-off by Sprint Nextel of Embarg, its local communications business. In the spin-off, each share of Sprint Nextel Corporation common stock received 0.05 shares of the new Embarg common stock. Of these shares, 100,000 shares collateralize our Sprint Nextel prepaid forward sales obligation that terminates in 2011.

In May 2006, we received 25 million shares of Liberty Media Interactive ("Liberty Interactive") Series A common stock and 5 million shares of Liberty Media Capital ("Liberty Capital") Series A common stock in connection with Liberty Media's restructuring. In the restructuring, each share of Liberty Media Series A common stock received 0.25 shares of the new Liberty Interactive Series A common stock and 0.05 shares of Liberty Capital Series A common stock in exchange for each share of Liberty Media Series A common stock. All of these shares collateralize a portion of our Liberty Media prepaid forward sales obligation that terminates in 2014.

In June 2004, we received approximately 11 million shares of Liberty Global, Inc. ("Liberty Global") Series A common stock in connection with its spin-off by Liberty Media. In the spin-off, each share of Liberty Media Series A common stock received 0.05 shares of the new Liberty Global Series A common stock. Approximately 5 million of these shares collateralize a portion of our Liberty Media prepaid forward sales obligation that terminates in 2014.

In December 2004, we sold 3 million shares of Liberty Global Series A common stock to Liberty Media in a private transaction for cash proceeds of \$128 million.

In February 2005, we entered into a prepaid forward sale that terminates in 2015 of approximately 2.7 million shares of Liberty Global Series A common stock for cash proceeds of \$99 million.

In September 2005, we received approximately 7.7 million shares of Liberty Global Series C common stock in connection with Liberty Global's special stock dividend. All of these shares collateralize a portion of our Liberty Media prepaid forward sales obligation that terminates in 2014 and a portion of our Liberty Global prepaid forward sales obligation that terminates in 2015.

In March 2006, we received cash proceeds of \$62 million in connection with Sprint Nextel's redemption of all of its outstanding Seventh Series B Convertible Preferred Stock ("Sprint Preferred Stock"), including all 61,726 shares of Sprint Preferred Stock held by us. In connection with the redemption transaction, we recognized investment income of \$8 million.

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# **Equity Method**

Our recorded investments exceed our proportionate interests in the book value of the investees' net assets by \$984 million and \$1.210 billion as of December 31, 2006 and 2005, respectively (principally related to our investments in TKCCP (50% interest), Insight Midwest (50% interest), and MGM (20% interest)). A portion of this basis difference has been attributed to franchise-related customer relationships of some of the investees. This difference is amortized to equity in (loss) income of affiliates, net over a period of four years. The portion of the basis difference attributable to goodwill is tested for impairment annually, or more frequently whenever events or changes in circumstances indicate that the investment might be impaired.

SpectrumCo, LLC ("SpectrumCo"), a consortium of investors including us, was the successful bidder for 137 wireless spectrum licenses for approximately \$2.4 billion in the Federal Communications Commission's advanced wireless spectrum auction that concluded in September 2006. Our portion of the total cost to purchase the licenses was approximately \$1.3 billion. Based on its currently planned activities, we have determined that SpectrumCo is not a VIE. We account for this joint venture as an equity method investment based on its governance structure, notwithstanding our majority interest.

In October 2006, we contributed \$1.362 billion to TKCCP to refinance the outstanding bank and partnership debt of the Houston Asset Pool. We have historically accounted for our interest in TKCCP as an equity method investment. However, effective July 1, 2006 (the beginning of the month when dissolution was initiated), the economic return to us on our interest in TKCCP tracked the performance of the Houston Asset Pool, and we were no longer entitled to any benefits of ownership or responsible for the obligations of the Kansas City Asset Pool. As a result, we began reporting our share of the earnings and losses of TKCCP based solely on the operating results of the Houston Asset Pool. For segment reporting purposes, we have included the operating results of the Houston Asset Pool in our Cable segment. However, the operating results of the Houston Asset Pool are eliminated in our consolidated financial statements (see Note 14). On January 1, 2007, the distribution of assets of TKCCP was completed and we received the Houston Asset Pool (see Note 5).

In April 2005, we completed a transaction with a group of investors to acquire Metro-Goldwyn-Mayer Inc. We acquired a 20% economic interest for approximately \$250 million in cash.

In September 2004, we sold our 20% interest in DHC Ventures, LLC ("Discovery Health Channel") to Discovery Communications, Inc. for approximately \$149 million in cash and recognized a gain on the sale of approximately \$94 million to other income.

# **Cost Method**

We hold two series of preferred stock of AirTouch Communications, Inc. ("AirTouch"), a subsidiary of Vodafone, that are recorded at \$1.451 billion and \$1.437 billion as of December 31, 2006 and 2005, respectively. The dividend and redemption activity of the AirTouch preferred stock is tied to the dividend and redemption payments associated with substantially all of the preferred shares issued by one of our consolidated subsidiaries, which is a VIE. The subsidiary has three series of preferred stock outstanding with an aggregate redemption value of \$1.750 billion. Substantially all of the preferred shares are redeemable in April 2020 at a redemption value of \$1.650 billion, with one of the series bearing a 9.08% dividend rate. The two redeemable series of subsidiary preferred shares are recorded at \$1.451 billion and \$1.437 billion, and such amounts are included in other noncurrent liabilities as of December 31, 2006 and 2005, respectively. The non-redeemable series of subsidiary preferred shares is recorded at \$100 million as of both December 31, 2006 and 2005, and such amounts are included in minority interest.

#### Investment Income (Loss), Net

Investment income (loss), net includes the following:

Year Ended December 31 (in millions)	2006	2005	2004
Interest and dividend income	\$ 178	\$ 112	\$ 160
Gains on sales and exchanges			
of investments, net	733	17	45
Investment impairment losses	(4)	(3)	(16)
Unrealized gains (losses) on			
trading securities and			
hedged items	339	(25 <del>9</del> )	378
Mark to market adjustments on			
derivatives related to trading			
securities and hedged items	(238)	206	(120)
Mark to market adjustments on			
derivatives	(18)	16	25
Investment income (loss), net	\$ 990	\$89	\$ 472

In connection with the Adelphia and Time Warner transactions, we recognized gains of approximately \$646 million, in the aggregate, on the Redemptions and the exchange of cable systems held by Century and Parnassos (see Note 5). These gains are included within the "Gains on sales and exchanges of investments, net" caption in the table above.

The December 31, 2005 and 2004 Cable segment goodwill balances exclude \$720 million related to discontinued operations. The changes in the carrying amount of goodwill by business segment (see Note 14) for the periods presented are as follows:

(in millions)	Cable	Programming	Corporate and Other	Total
Balance, December 31, 2004	\$ 12,278	\$ 824	\$ 198	\$ 13,300
Settlements and adjustments	(50)	89	-	39
Acquisitions	45	53	61	159
Balance, December 31, 2005	12,273	966	259	13,498
Settlements and adjustments	(695)	7	-	(688)
Acquisitions	432	468	58	958
Balance, December 31, 2006	\$ 12,010	\$ 1,441	\$ 317	\$ 13,768

Settlements and adjustments are primarily related to certain pre-acquisition tax liabilities. Acquisitions in 2006 are primarily related to the Adelphia and Time Warner transactions, and the Susquehanna and E! Entertainment Television transactions.

The gross carrying amount and accumulated amortization of our intangible assets subject to amortization are as follows:

		2006		2	005
December 31 (in millions)-	Useful Life	Gross Carrying Amount	Accumulated Amortization	Gross Canying Amount	Accumulated Amortization
Franchise-related customer relationships	4-11 years	\$ 4,954	\$ (3,188)	\$ 3,273	\$(2,701)
Cable and satellite television distribution rights	5-11 years	1,267	(533)	1,333	(685)
Cable franchise renewal costs and contractual					
operating rights	10 years	982	(283)	863	(198)
Computer software	1-5 years	1,104	(515)	871	(252)
Patents and other technology rights	3–12 years	214	(62)	214	(62)
Programming agreements and rights	2-4 years	1,026	(782)	772	(520)
Other agreements and rights	2-22 years	877	(180)	427	(217)
Total		\$10,424	\$ (5,543)	\$ 7,753	\$(4,635)

Estimated amortization expense for each of the next five years is as follows:

in millions) Estimated Amor		
2007	\$ 997	
2008	751	
2009	679	
2010	561	
2011	375	

December 31 (in millions)	Weighted Average Interest Rate as of December 31, 2006	2006	2005
Commercial paper	5.42%	\$ 199	\$ 549
Term Ioan, due 2008	5.85%	185	_
Senior notes,			
due 2006-2097	6.93%	26,942	20,993
Senior subordinated n	otes,		
due 2006-2012	10.63%	202	349
ZONES due 2029	2.00%	747	752
Debt supporting Trust			
Preferred Securities	1		
due 2027	9.65%	283	284
Exchangeable notes,			
due 2007	5.77%	<b>49</b>	46
Other, including capita	d.		
lease obligations	-	368	398
Total debt		28,975	23,371
Less: current portion		983	1,689
Long-term debt		\$ 27,992	\$ 21,682

As of December 31, 2006, maturities of long-term debt outstanding were as follows:

(in millions)	Maturities
2007	\$ 983
2008	1,668
2009	2,249
2010	1,320
2011	1,767
Thereafter	20,988

### **Guarantee Structures**

Comcast Corporation (our parent corporation) and a number of our wholly owned subsidiaries that hold substantially all of our cable assets have unconditionally guaranteed each other's debt securities and indebtedness for borrowed money, including amounts outstanding under our \$5.0 billion revolving bank credit facility. As of December 31, 2006, \$27.141 billion of our debt was included in this cross-guarantee structure.

Comcast Holdings Corporation ("Comcast Holdings"), our wholly owned subsidiary, is not part of the cross-guarantee structure. However, Comcast Corporation has unconditionally guaranteed Comcast Holdings' ZONES due October 2029 and its 10%% Senior Subordinated Debentures due 2012, which totaled \$683 million as of December 31, 2006. The Comcast Holdings guarantee is subordinate to the guarantees under the cross-guarantee structure.

# **Debt Borrowings**

During 2006, we issued \$7.485 billion aggregate principal amount of senior notes as follows:

(in millions)	Principal
Floating-rate notes (LIBOR + 0.3%), due 2009	\$ 1,250
5.90% Senior notes, due 2016	1,000
6.50% Senior notes, due 2017	1,000
5.875% Senior notes, due 2018	900
6.45% Senior notes, due 2037	1,865
7.00% Senior notes, due 2055	1,470
	\$ 7,485

We used the net proceeds of these offerings for working capital and general corporate purposes, including the repayment of commercial paper obligations (see below), the Adelphia and Time Warner transactions, the refinancing of debt associated with the Houston Asset Pool, and the acquisition of the remaining portion of E! Entertainment Television that we did not already own (see Note 5).

# **Debt Repayments**

During 2006, we repaid \$1.607 billion aggregate principal amount of senior notes and senior subordinated notes at their scheduled maturity dates as follows:

nillions) Pi		nincipal	
6.375% Senior notes	\$	500	
6.875% Senior notes		388	
8.3% Senior notes		600	
10.5% Senior subordinated notes		119	
	\$1	,607	

During 2006, we also repaid \$350 million outstanding under our commercial paper program and \$82 million of other debt.

# **Commercial Paper**

Our commercial paper program provides a lower cost borrowing source of liquidity to fund our short-term working capital requirements. The program allows for a maximum of \$2.25 billion of commercial paper to be issued at any one time. Our revolving bank credit facility supports this program. Amounts outstanding under the program are classified as long-term in our consolidated balance sheet because we have both the ability and the intent to refinance these obligations, if necessary, on a long-term basis with amounts available under our revolving bank credit facility.

### **Revolving Bank Credit Facility**

We have a \$5.0 billion revolving bank credit facility due October 2010 (the "credit facility") with a syndicate of banks. The base rate, chosen at our option, is either London Interbank Offered Rate ("LIBOR") or the greater of the prime rate or the Federal Funds rate plus 0.5%. The borrowing margin is based on our senior unsecured debt ratings. As of December 31, 2006, the interest rate for borrowings under the credit facility is LIBOR plus 0.35% based on our credit ratings.

# Lines and Letters of Credit

As of December 31, 2006, we and certain of our subsidiaries had unused lines of credit totaling \$4.464 billion under various credit facilities and unused irrevocable standby letters of credit totaling \$377 million to cover potential fundings under various agreements.

# ZONES

At maturity, holders of our 2.0% Exchangeable Subordinated Debentures due 2029 (the "ZONES") are entitled to receive in cash an amount equal to the higher of the principal amount of the outstanding ZONES of \$1.807 billion or the market value of 24,124,398 shares of Sprint Nextel common stock and 1,205,049 shares of Embarq common stock. Prior to maturity, each ZONES is exchangeable at the holder's option for an amount of cash equal to 95% of the aggregate market value of one share of Sprint Nextel common stock and 0.05 shares of Embarq common stock.

We separate the accounting for the ZONES into derivative and debt components. We record the change in the fair value of the derivative component of the ZONES (see Note 6) and the change in the carrying value of the debt component of the ZONES as follows:

Year Ended December 31, 2006 (in millions)	Debt Component	Derivative Component	Total
Balance at beginning of year	\$ 568	\$184	\$752
Change in debt component			
to interest expense	28	-	28
Change in derivative			
component to investment			
income (loss), net	_	(33)	(33)
Balance at end of year	\$ 596	<b>\$ 1</b> 51	\$ 747

#### Interest Rates

Excluding the derivative component of our Exchangeable Notes due 2007 and the ZONES whose changes in fair value are recorded to investment income (loss), net, our effective weighted-average interest rate on our total debt outstanding was 7.07% and 7.32% as of December 31, 2006 and 2005, respectively. As of December 31, 2006 and 2005, accrued interest was \$501 million and \$422 million, respectively.

# Interest Rate Risk Management

We are exposed to the market risk of adverse changes in interest rates. To manage the volatility relating to these exposures, our policy is to maintain a mix of fixed-rate and variable-rate debt and to enter into various interest rate derivative transactions as described below.

Using swaps, we agree to exchange, at specified intervals, the difference between fixed and variable interest amounts calculated by reference to an agreed-upon notional principal amount. Rate locks are sometimes used to hedge the risk that the cash flows related to the interest payments on an anticipated issuance or assumption of fixed-rate debt may be adversely affected by interest rate fluctuations.

The following table summarizes the terms of our existing swaps:

(in millions)	Notional Amount	Maturities	Average Pay Rate	Average Receive Rate	Estimated Fair Value
As of December 31, 2006					
Fixed to Variable Swaps	\$ 3,200	2008-2014	7.2%	5.9%	\$ (103)
As of December 31, 2005					
Fixed to Variable Swaps	\$ 3,600	2006-2014	6.5%	6.0%	\$ (97)

The notional amounts of interest rate instruments, as presented in the above table, are used to measure interest to be paid or received and do not represent the amount of exposure to credit loss. The estimated fair value approximates the proceeds or payments to settle the outstanding contracts. Swaps and rate locks represent an integral part of our interest rate risk management program. The effect of our interest rate derivative financial instruments was to increase our interest expense by approximately \$39 million in 2006, and to decrease our interest expense by approximately \$16 million and \$66 million in 2005 and 2004, respectively.

We have entered into rate locks to hedge the risk that the cash flows related to the interest payments on an anticipated issuance or assumption of fixed-rate debt may be adversely affected by interest-rate fluctuations. Upon the issuance or assumption of fixed-rate debt, the value of the rate locks is being recognized as an adjustment to interest expense, similar to a deferred financing cost, over the same period in which the related interest costs on the debt are recognized in earnings (approximately 11 years remaining, unless earlier retired). The unrealized pretax losses on cash flow hedges as of December 31, 2006 and 2005, of \$185 million and \$203 million, respectively, have been reported in our balance sheet as a component of accumulated other comprehensive income (loss), net of related deferred income taxes of \$65 million and \$71 million, respectively.

# **Estimated Fair Value**

Our debt had estimated fair values of \$28.923 billion and \$25.305 billion as of December 31, 2006 and 2005, respectively. The estimated fair value of our publicly traded debt is based on quoted market values for that debt. Interest rates that are currently available to us for issuance of debt with similar terms and remaining maturities are used to estimate fair value for debt issues for which quoted market prices are not available.

#### **Debt Covenants**

Some of our loan agreements require that we maintain financial ratios based on debt, interest and operating income before depreciation and amortization, as defined in the agreements. We were in compliance with all financial covenants for all periods presented.

We sponsor two pension plans that together provide benefits to substantially all former employees of a previously acquired company. As of December 31, 2006, future benefits for both plans have been frozen. Total pension expense recognized for the years ended December 31, 2006, 2005 and 2004, was \$8 million, \$8 million and \$9 million, respectively.

Our postretirement medical benefits cover substantially all of our employees who meet certain age and service requirements. The majority of eligible employees participate in the Comcast Postretirement Healthcare Stipend Program (the "Stipend Plan"), and a small number of eligible employees participate in legacy plans of acquired companies. The Stipend Plan provides an annual stipend for reimbursement of healthcare costs to each eligible employee based on years of service. Based on the benefit design of the Stipend Plan, we are not exposed to the cost of increasing healthcare, since the amounts under the Stipend Plan are fixed at a predetermined amount. Postretirement expense recognized for the years ended December 31, 2006, 2005 and 2004, was \$29 million, \$25 million and \$23 million, respectively.

The following table provides condensed information relating to our pension benefits and postretirement benefits for the periods presented:

	2006		2005	
Year Ended December 31 (in millions)	Pension Benefits	Postretirement Benefits	Pension Benefits	Postretirement Benefits
Benefit obligation	\$ 184	\$ 280	\$ 194	\$ 247
Fair value of plan assets	\$ 122	\$ -	\$ 98	\$ -
Plan funded status and recorded benefit obligation	\$ (62)	\$ (280)	\$ (96)	\$ (236)
Portion of benefit obligation not yet recognized as a component				
of net periodic benefit cost	\$ 12	\$ (4)	\$ 18	_
Discount rate	5.75%	6.00%	5.50%	5.75%
Expected return on plan assets	7.00%	N/A	7.00%	N/A

We sponsor various retirement investment plans that allow eligible employees to contribute a portion of their compensation through payroll deductions in accordance with specified guidelines. We match a percentage of the employees' contributions up to certain limits. Expenses related to these plans amounted to \$125 million, \$115 million and \$100 million for the years ended December 31, 2006, 2005 and 2004, respectively.

We also maintain unfunded, nonqualified deferred compensation plans, which were created for key executives, other members of management and nonemployee directors (each a "Participant"). The amount of compensation deferred by each Participant is based on Participant elections. Account balances of Participants are credited with income based generally on a fixed annual rate of interest. Participants will be eligible to receive distributions of the amounts credited to their account balance based on elected deferral periods that are consistent with the plans and applicable tax law. Interest expense recognized under the plans totaled \$50 million, \$40 million and \$33 million for the years ended December 31, 2006, 2005 and 2004, respectively. The unfunded obligation of the plans total \$554 million and \$469 million as of December 31, 2006 and 2005, respectively. We have purchased life insurance policies to fund a portion of this unfunded obligation. As of December 31, 2006, the cash surrender value of these policies, which are included in "Other Assets," was approximately \$40 million.

# **Preferred Stock**

We are authorized to issue, in one or more series, up to a maximum of 20 million shares of preferred stock. We can issue the shares with such designations, preferences, qualifications, privileges, limitations, restrictions, options, conversion rights and other special or related rights as our Board of Directors shall from time to time fix by resolution.

# **Common Stock**

Our Class A Special common stock is generally nonvoting. Holders of our Class A common stock in the aggregate hold 66<sup>2</sup>/<sub>3</sub>% of the aggregate voting power of our common stock. The number of votes that each share of our Class A common stock will have at any given time will depend on the number of shares of Class A common stock and Class B common stock then outstanding. Each share of our Class B common stock is entitled to 15 votes, and all shares of our Class B common stock in the aggregate have 33<sup>1</sup>/<sub>3</sub>% of the voting power of all of our common stock. The 33<sup>1</sup>/<sub>3</sub>% aggregate voting power of our Class B common stock will not be diluted by additional issuances of any other class of our common stock. Our Class B common stock is convertible, share for share, into Class A or Class A Special common stock, subject to certain restrictions.

# **Board-Authorized Share Repurchase Program**

During 2006, 2005 and 2004, we repurchased approximately 113 million, 119 million and 70 million shares, respectively (adjusted to reflect the Stock Split), of our Class A Special common stock for aggregate consideration of \$2.347 billion, \$2.290 billion and \$1.328 billion, respectively, pursuant to our Board-authorized share repurchase program.

The maximum dollar value of shares remaining that may be repurchased under the program is approximately \$3 billion as of December 31, 2006. We expect repurchases to continue from time to time in the open market or in private transactions, subject to market conditions.

The following table summarizes our share activity for the periods presented (adjusted to reflect the Stock Split):

Common Stock	Class A	Class A Special	Class B
Balance, January 1, 2004	2,036,280,835	1,331,386,738	9,444,375
Stock compensation plans	1,537,284	8,153,658	-
Employee Stock Purchase Plan	1,702,427	-	-
Repurchases of common stock	_	(70,401,353)	-
Balance, December 31, 2004	2,039,520,546	1,269,139,043	9,444,375
Stock compensation plans	3,586,731	2,975,453	_
Employee Stock Purchase Plan	1,943,700	-	-
Repurchases of common stock	-	(118,680,437)	-
Balance, December 31, 2005	2,045,050,977	1,153,434,059	9,444,375
Stock compensation plans	13,140,825	9,362,105	_
Employee Stock Purchase Plan	2,166,158		-
Repurchases of common stock	-	(113,071,157)	-
Balance, December 31, 2006	2,060,357,960	1,049,725,007	9,444,375

# **Comcast Option Plans**

We maintain stock option plans for certain employees under which fixed-price stock options may be granted and the option price is generally not less than the fair value of a share of the underlying stock at the date of grant. Under our stock option plans, approximately 236 million shares (adjusted to reflect the Stock Split) of our Class A and Class A Special common stock are reserved for issuance upon the exercise of options, including those outstanding as of December 31, 2006. Option terms are generally 10 years, with options generally becoming exercisable between two and nine and one half years from the date of grant.

The fair value of each stock option is estimated on the date of grant using the Black-Scholes option pricing model that uses the assumptions summarized in the following table. Expected volatility is based on a blend of implied and historical volatility of our Class

A common stock. We use historical data on exercises of stock options and other factors to estimate the expected term of the options granted. The risk-free rate is based on the U.S. Treasury yield curve in effect at the date of grant.

The following table summarizes the weighted-average fair values at date of grant (adjusted to reflect the Stock Split) of a Class A common stock option granted under our stock option plans and the related weighted-average valuation assumptions:

	2006	2005	2004
Fair value	\$ 7.30	\$ 8.67	\$ 7.63
Dividend yield	0%	0%	0%
Expected volatility	26.9%	27.1%	28.6%
Risk-free interest rate	4.8%	4.3%	3.5%
Expected option life (in years)	7.0	7.0	7.0

The following table summarizes the activity of our stock option plans for the year ended December 31, 2006 (adjusted to reflect the Stock Split):

	Options (in thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Class A Common Stock				
Outstanding as of January 1, 2006	121,240	\$ 24.73		
Granted	18,594	\$ 18.12		
Exercised	(12,222)	\$ 19.18		
Forfeited	(4,113)	\$ 19.76		
Expired	(1,722)	\$ 26.10		
Outstanding as of December 31, 2006	121,777	\$ 24.43	5.5	\$ 812.3
Exercisable as of December 31, 2006	67,297	\$ 28.33	3.6	\$ 343.1
Class A Special Common Stock				
Outstanding as of January 1, 2006	76,948	\$ 20.90		
Exercised	(10,545)	\$ 15.31		
Forfeited	(95)	\$ 21.75		
Expired	(1,707)	\$ 23.96		
Outstanding as of December 31, 2006	64,601	\$ 21.75	3.5	\$ 410.6
Exercisable as of December 31, 2006	57,081	\$ 21.95	3.4	\$ 353.1

We also maintain a deferred stock option plan for certain employees and directors that provided the optionees with the opportunity to defer the receipt of shares of our Class A or Class A Special common stock that would otherwise be deliverable upon exercise by the optionees of their stock options. As of December 31, 2006, approximately 2.0 million shares (adjusted to reflect the Stock Split) of Class A Special common stock were issuable under exercised options, the receipt of which was irrevocably deferred by the optionees pursuant to our deferred stock option plan.

# Stock Option Liquidity Program

During 2004, we repurchased 16.6 million options (adjusted to reflect the Stock Split) from various nonemployee holders of stock options under a stock option liquidity program, targeted primarily to employees of a previously acquired company. The former option holders received \$37 million for their options under the program. A financial counterparty we engaged in connection with the stock option liquidity program funded the cost of the program through the simultaneous purchase by the counterparty of new stock options from us that had similar economic terms as the options being purchased by us from the option holders. As of December 31, 2006, 13.9 million options remain outstanding, with a weighted-average exercise price of \$30.89 per share (adjusted to reflect the Stock Split), and these options will expire over the course of the next six years.

# **Restricted Stock Plan**

We maintain a restricted stock plan under which certain employees and directors ("Participants") may be granted restricted share unit awards in our Class A or Class A Special common stock (the "Restricted Stock Plan"). Under our Restricted Stock Plan, approximately 40 million shares (adjusted to reflect the Stock Split) of our Class A and Class A Special common stock are reserved for issuance pursuant to awards under the plan, including those outstanding as of December 31, 2006. Awards of restricted share units are valued by reference to shares of common stock that entitle Participants to receive, upon the settlement of the unit, one share of common stock for each unit. The awards vest annually, generally over a period not to exceed five years from the date of the award, and do not have voting rights.

The following table summarizes the weighted-average fair value at date of grant (adjusted to reflect the Stock Split) and the compensation expense recognized related to restricted share unit awards:

	2006	2005	2004
Weighted-average fair value	\$19.98	\$ 22.13	\$ 20.73
Compensation expense recognized (in millions)	<b>\$</b> 62	<b>\$</b> 57	\$ 33

The following table summarizes the activity of the Restricted Stock Plan for the year ended December 31, 2006 (adjusted to reflect the Stock Split):

	Number of Nonvested Share Unit Awards (in thousands)	Weighted- Average Grant Date Fair Value
Class A Common Stock		
Nonvested awards as of		
January 1, 2006	8,474	\$21.70
Granted	7,539	\$ 19.98
Vested	(1,635)	\$21.90
Forfeited	(894)	\$20.76
Nonvested awards as of		
December 31, 2006	13,484	\$20.78
Class A Special Common Sto	ck	
Nonvested awards as of		
January 1, 2006	104	\$24.46
Vested	(103)	\$24.75
Nonvested awards as of		
December 31, 2006	1	\$ 18.31

As of December 31, 2006, approximately 605,000 and 145,000 shares (adjusted to reflect the Stock Split) of Class A common stock and Class A Special common stock, respectively, were issuable under vested restricted share unit awards, the receipt of which was irrevocably deferred by Participants pursuant to the Restricted Stock Plan.

# Share-Based Compensation

Effective January 1, 2006, we adopted SFAS No. 123R using the Modified Prospective Approach. SFAS No. 123R revises SFAS No. 123 and supersedes APB No. 25. SFAS No. 123R requires the cost of all share-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values at grant date, or the date of later modification, over the requisite service period. In addition, SFAS No. 123R requires unrecognized cost (based on the amounts previously disclosed in our pro forma footnote disclosure) related to options vesting after the date of initial adoption to be recognized in the financial statements over the remaining requisite service period.

Under the Modified Prospective Approach, the amount of compensation cost recognized includes: (i) compensation cost for all share-based payments granted prior to, but not yet vested as of January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123 and (ii) compensation cost for all share-based payments granted subsequent to January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123R. Prior to the

adoption of SFAS No. 123R, we recognized the majority of our share-based compensation costs using the accelerated recognition method. We recognize the cost of previously granted share-based awards under the accelerated recognition method and recognize the cost of new share-based awards on a straight-line basis over the requisite service period. The incremental pretax share-based compensation expense recognized due to the adoption of SFAS No.123R for the year ended December 31, 2006, was \$126 million. Total share-based compensation expense recognized under SFAS No. 123R, including the incremental pretax share-based compensation expense, was \$190 million, with an associated tax benefit of \$66 million for the year ended December 31, 2006. Prior to the adoption of SFAS No.123R, we recognized share-based compensation expense of \$67 million and \$44 million with associated tax benefits of \$25 million and \$16 million for the years ended December 31, 2005 and 2004, respectively. The amount of share-based compensation capitalized or related to discontinued operations was not material to our consolidated financial statements.

Cash received from option exercises under all share-based payment arrangements for the year ended December 31, 2006, was \$372 million. The total intrinsic value (market value on date of exercise less exercise price) of options exercised for the years ended December 31, 2006, 2005 and 2004, was \$180 million, \$59 million and \$88 million, respectively. The tax benefit realized from stock options exercised for the years ended December 31, 2006, 2005 and 2004, was \$62 million, \$19 million and \$30 million, respectively.

As of December 31, 2006, there was \$207 million of total unrecognized, pretax compensation cost related to nonvested stock options. This cost is expected to be recognized over a weightedaverage period of approximately two and one half years.

The total fair value of restricted share units vested during the years ended December 31, 2006, 2005 and 2004, was \$32 million, \$28 million and \$7 million, respectively. As of December 31, 2006, there was \$177 million of total unrecognized pretax compensation cost related to nonvested restricted share unit awards. This cost is expected to be recognized over a weighted-average period of approximately two and one half years.

SFAS No. 123R also required us to change the classification, in our consolidated statement of cash flows, of any tax benefits realized upon the exercise of stock options or issuance of restricted share unit awards in excess of that which is associated with the expense recognized for financial reporting purposes. These amounts are presented as a financing cash inflow rather than as a reduction of income taxes paid in our consolidated statement of cash flows. The excess cash tax benefit classified as a financing cash inflow for the year ended December 31, 2006, was \$33 million.

Prior to January 1, 2006, we accounted for our share-based compensation plans in accordance with the provisions of APB No. 25, as permitted by SFAS No. 123, and accordingly did not recognize compensation expense for stock options with an exercise price equal to or greater than the market price of the underlying stock at the date of grant. Had the fair-value-based method as prescribed by SFAS No. 123 been applied, additional pretax compensation expense of \$166 million and \$283 million would have been recognized for the years ended December 31, 2005 and 2004, respectively. The pretax compensation expense includes the expense related to discontinued operations, which for each of the years ended December 31, 2005 and 2004, was \$4 million. Had the fair-value-based method as prescribed by SFAS No.123 been applied, the effect on net income and earnings per share would have been as follows (adjusted to reflect the Stock Split):

(in millions, except per share data)	2005	2004
Net income, as reported	\$ 928	\$ 970
Add: Share-based compensation		
expense included in net income,		
as reported above, net of related		
tax effects	42	27
Less: Share-based compensation		
expense determined under fair		
value-based method for all awards,		
net of related tax effects	(150)	(206)
Pro forma, net income	\$ 820	\$ 791
Basic earnings for common		
stockholders per common share:		
As reported	\$ 0.28	\$ 0.29
Pro forma	\$ 0.25	\$ 0.24
Diluted earnings for common		
stockholders per common share:		
As reported	\$ 0.28	\$ 0.29
Pro forma	\$ 0.25	\$ 0.23

On December 23, 2004, the Compensation Committee of our Board of Directors approved the acceleration of vesting of all unvested options granted prior to January 1, 2003, to purchase shares of our Class A Special common stock having an exercise price of \$22.67 (adjusted to reflect the Stock Split) or greater and held by current employees. Options with respect to approximately 23.3 million shares (adjusted to reflect the Stock Split) of our Class A Special common stock were subject to this acceleration. This acceleration was effective as of December 31, 2004, except for those holders of incentive stock options ("ISOs"), who were given the opportunity to decline the acceleration of an option if such acceleration would have the effect of changing the status of the option for federal income tax purposes from an ISO to a nonqualified stock option. Because these options had exercise prices in excess of current market values (were "underwater") and were not fully achieving their original objectives of incentive compensation and employee retention, the acceleration may have had a positive effect on employee morale, retention and perception of option value. The acceleration also took into account the fact that in December 2004, we completed the repurchase of stock options held by certain nonemployees for cash (including underwater options) under a stock option liquidity program (see above), and that no such offer (nor any other "solution" for underwater options) was made to current employees. The acceleration had no effect on reported net income, an immaterial impact on pro forma net income in 2005 and an approximate \$39 million, net of tax, impact on pro forma net income in 2004. The impacts of the acceleration are reflected in the pro forma amounts above. This acceleration eliminated the future compensation expense we would have otherwise recognized in our statement of operations with respect to these options subsequent to the adoption of SFAS No. 123R.

We join with our 80% or more owned subsidiaries in filing consolidated federal income tax returns. E! Entertainment filed separate consolidated federal income tax returns for periods prior to our obtaining 100% ownership, which occurred in November 2006 (see Note 5). Income tax (expense) benefit consists of the following components:

Year Ended December 31 (in millions)	2006	2005	2004
Current (expense) benefit			
Federal	\$ (887)	\$ (590)	\$ (120)
State	(77)	(123)	(208)
	(964)	(713)	(328)
Deferred (expense) benefit			
Federal	(301)	(66)	(536)
State	(82)	(94)	63
	(383)	(160)	(473)
Income tax (expense) benefit	\$ (1,347)	\$ (873)	\$ (801)

Our effective income tax (expense) benefit differs from the federal statutory amount because of the effect of the following items:

Year Ended December 31 (in millions)	2006	2005	2004
Federal tax at statutory rate	\$ (1,258)	\$ (602)	\$ (610)
State income taxes, net of			
federal benefit	(132)	(105)	(20)
Nondeductible losses from			
joint ventures and equity			
in net (losses) income of			
affiliates, net	18	(24)	(9)
Adjustments to prior year			
income tax accrual and			
related interest	97	(105)	(157)
Other	(72)	(37)	(5)
Income tax (expense) benefit	\$ (1,347)	\$ (873)	\$(801)

Our net deferred tax liability consists of the following components:

December 31 (in millions)		2006		2005
Deferred tax assets:				
Net operating loss carryforwards	\$	309	\$	331
Differences between book and tax basis				
of long-term debt		177		191
Nondeductible accruals and other		742		904
		1,228		1,426
Deferred tax liabilities:				
Differences between book and tax basis				
of property and equipment and				
intangible assets	\$ 2	5,527	\$2	23,712
Differences between book and tax basis				
of investments		2,633		4,442
Differences between book and tax basis				
of indexed debt securities	-	720		644
	2	8,880	2	28,798
Net deferred tax liability	\$2	27,652	\$ 2	27,372

We recorded \$(27) million and \$319 million of deferred income tax liabilities (assets) in 2006 through income from discontinued operations and gain on discontinued operations, respectively. We decreased net deferred income tax liabilities by \$474 million in 2006, principally in connection with the Adelphia and Time Warner transactions, the acquisition of the interest in E! Entertainment Television that we did not already own and Susquehanna (see Note 5).

We recorded an increase (decrease) of \$79 million, \$2 million and \$(12) million to net deferred income tax liabilities in 2006, 2005 and 2004, respectively, in connection with unrealized gains (losses) on marketable securities, cash flow hedges and other amounts that are included in accumulated other comprehensive income (loss).

Net deferred tax liabilities included in current liabilities are related primarily to our current investments. We have federal net operating loss carryforwards of \$178 million and various state carryforwards that expire in periods through 2026. The determination of the state net operating loss carryforwards is dependent upon the subsidiaries' taxable income or loss, apportionment percentages and other respective state laws that can change from year to year and impact the amount of such carryforward.

In 2006, 2005 and 2004, income tax benefits attributable to sharebased compensation of approximately \$60 million, \$35 million and \$80 million, respectively, were allocated to stockholders' equity.

In the ordinary course of business, our tax returns, including those of acquired subsidiaries, are subject to examination by various taxing authorities.

In December 2004, the Internal Revenue Service concluded an examination of the tax returns of MediaOne Group, Inc., a subsidiary acquired in our 2002 acquisition of AT&T Corp.'s cable business, for the period of 1996 through 2000. We received a notice of adjustment disallowing certain deductions, principally a \$1.5 billion breakup fee paid by MediaOne in 1999. The National Office of the IRS has issued a Technical Advice Memorandum that is adverse to us. We do not agree with the adjustment. We have received a final assessment and are in the process of preparing an appeal. In November 2005, we made a payment of \$557 million to reduce the accruing of interest on the pending assessment. If we are successful in part or full, all or some of the funds would be refundable. If the IRS prevails, there would be no material effect on our consolidated results of operations for any period.

During 2005, the IRS proposed the disallowance of noncash interest deductions taken on the ZONES (see Note 8). The National Office of the IRS has issued a Technical Advice Memorandum that is adverse to us. We have recognized a cumulative federal tax benefit of \$523 million through December 31, 2006, which will reverse and become payable upon the maturity or retirement of the ZONES; we have recorded this amount as a deferred tax liability. If the IRS's position is sustained, the income tax benefits previously recognized would be disallowed, and interest would be assessed on amounts disallowed. Accordingly, the amounts recorded as deferred taxes would become payable. We do not agree with the IRS's position and have appealed. The ultimate resolution of this issue is not expected to have a material effect on our consolidated results of operations for any period.

Other examinations of our tax returns may result in future tax and interest assessments by the taxing authorities, and we have accrued a liability when we believe that it is probable that we will be assessed. Differences between the estimated and actual amounts determined upon ultimate resolution, individually or in the aggregate, are not expected to have a material adverse effect on our consolidated financial position but could possibly be material to our consolidated results of operations or cash flows of any one period.

In 2006, we began presenting our cash overdrafts resulting from checks drawn on zero balance accounts ("book overdrafts") within accounts payable and accrued expenses related to trade creditors. Previously, these book overdrafts were included within cash and cash equivalents. The financial statements reflect this revised presentation in prior periods. Accordingly, the reported amounts of our cash and cash equivalents and accounts payable and accrued expenses related to trade creditors increased as of December 31, 2005, 2004 and 2003, by \$254 million, \$341 million and \$189 million, respectively, and net cash provided by operating activities decreased by \$87 million in 2005 and increased by \$152 million in 2004.

The following table summarizes our cash payments for interest and income taxes:

Year Ended December 31 (in millions)	2006	2005	2004
Interest	\$1,880	\$1,809	\$1,898
Income taxes	\$1,284	\$1,137	\$ 205

During 2006, we:

- exchanged investments for cable systems in the Redemptions. with a fair value of approximately \$3.2 billion and cable systems for cable systems in the Exchanges with a fair value of approximately \$8.5 billion (see Note 5), which are considered noncash investing activities
- · acquired an additional equity interest with a fair value of \$21 million and recorded a liability, for a corresponding amount in connection with our achievement of certain subscriber launch milestones, which is considered a noncash investing and operating activity
- in connection with the Susquehanna transaction (see Note 5), we assumed a \$185 million principal amount variable-rate term loan due 2008, which is considered a noncash financing and investing activity

During 2005, we:

- · settled through noncash financing and investing activities approximately \$1.347 billion related to our Exchangeable Notes by delivering the underlying securities to the counterparties upon maturity of the instruments, and the equity collar agreements related to the underlying securities were exercised
- · acquired \$170 million of intangible assets and incurred a corresponding liability in connection with the formation of the ventures in the Motorola transaction, which is considered a noncash investing and financing activity
- acquired an equity method investment with a fair value of \$91 million and incurred a corresponding liability, which is considered a noncash investing and financing activity
- · acquired an additional equity interest with a fair value of \$45 million and recorded a liability for a corresponding amount in connection with our achievement of certain subscriber launch milestones, which is considered a noncash investing and operating activity

# During 2004, we:

- · settled through noncash financing and investing activities approximately \$1.944 billion related to our Exchangeable Notes by delivering the underlying securities to the counterparties upon maturity of the instruments, and the equity collar agreements related to the underlying securities were exercised
- received noncash consideration of approximately \$475 million in connection with the Liberty Media Exchange Agreement (see Note 5), which is considered a noncash investing activity
- acquired cable systems through the assumption of \$68 million of debt, which is considered a noncash investing and financing activity
- issued shares of G4 with a value of approximately \$70 million in connection with the acquisition of TechTV (see Note 5), which is considered a noncash financing and investing activity
- received federal income tax refunds of approximately \$591 million

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# Commitments

Our programming networks have entered into license agreements for programs and sporting events that are available for telecast. In addition, we, through Corncast Spectacor, have employment agreements with both players and coaches of our professional sports teams. Certain of these employment agreements, which provide for payments that are guaranteed regardless of employee injury or termination, are covered by disability insurance if certain conditions are met.

Certain of our subsidiaries support debt compliance with respect to obligations of certain cable television partnerships and investments in which we hold an ownership interest (see Note 6). The obligations expire between May 2008 and March 2011. Although there can be no assurance, we believe that we will not be required to meet our obligations under such commitments. The total notional amount of our commitments was \$965 million as of December 31, 2006, at which time there were no quoted market prices for similar agreements.

The following table summarizes our minimum annual commitments under programming license agreements of our programming networks and our minimum annual rental commitments for office space, equipment and transponder service agreements under noncancelable operating leases:

December 31, 2006 (in millions)	Program License Agreements	Operating Leases
2007	\$ 381	\$ 292
2008	343	268
2009	273	223
2010	284	147
2011	285	106
Thereafter	2,338	578

The following table summarizes our rental expense charged to operations:

Year Ended December 31 (in millions)	2006	2005	2004
Rental expense	\$ 273	\$212	\$ 184

### Contingencies

We and the minority owner group in Comcast Spectacor each have the right to initiate an exit process under which the fair market value of Comcast Spectacor would be determined by appraisal. Following such determination, we would have the option to acquire the 24.3% interest in Comcast Spectacor owned by the minority owner group based on the appraised fair market value. In the event we do not exercise this option, we and the minority owner group would then be required to use our best efforts to sell Comcast Spectacor. This exit process includes the minority owner group's interest in Comcast SportsNet.

A minority owner of G4 is entitled to trigger an exit process whereby on May 10, 2009 (the fifth anniversary of the closing date), and on each successive anniversary of the closing date or the occurrence of certain other defined events, G4 would be required to purchase the minority owner's 15% interest at fair market value (as determined by an appraisal process). The minority owners in certain of our technology development ventures also have rights to trigger an exit process after a certain period of time based on the fair value of the entities at the time the exit process is triggered.

Litigation has been filed against us as a result of our alleged conduct with respect to our investment in and distribution relationship with At Home Corporation. At Home was a provider of high-speed Internet services that filed for bankruptcy protection in September 2001. Filed actions are: (i) class action lawsuits against us, AT&T (the former controlling shareholder of At Home and also a former distributor of the At Home service) and others in the United States District Court for the Southern District of New York, alleging securities law violations and common law fraud in connection with disclosures made by At Home in 2001; and (ii) a lawsuit brought in the United States District Court for the District of Delaware in the name of At Home by certain At Home bondholders against us, Brian L. Roberts (our Chairman and Chief Executive Officer and a director), Cox (Cox is also an investor in At Home and a former distributor of the At Home service) and others, alleging breaches of fiduciary duty relating to March 2000 agreements (which, among other things, revised the distributor relationships), and seeking recovery of alleged short-swing profits pursuant to Section 16(b) of the Exchange Act (purported to have arisen in connection with certain transactions relating to At Home stock effected pursuant to the March 2000 agreements).

In the Southern District of New York actions (item (i) above), the court dismissed all claims. The plaintiffs' appealed this decision, and the Court of Appeals for the Second Circuit denied the plaintiffs' appeal. The plaintiffs petitioned the Court of Appeals for rehearing. The Delaware case (item (ii) above) was transferred to the United States District Court for the Southern District of New York. The court dismissed the Section 16(b) claims, and the breach of fiduciary duty claim, for lack of federal jurisdiction. The Court of Appeals for the Second Circuit denied the plaintiffs' appeal from the decision dismissing the Section 16(b) claims, and the U.S. Supreme Court denied the plaintiffs' petition for a further appeal. The plaintiffs recommenced the breach of fiduciary duty claim in Delaware Chancery Court. The Court has set a trial date in October 2007.

Under the terms of our 2002 acquisition of AT&T Corp.'s cable business, we are contractually liable for 50% of any liabilities of AT&T in the actions described in items (i) and (ii) above (in which we are also a defendant).

We deny any wrongdoing in connection with the claims that have been made directly against us, our subsidiaries and Brian L. Roberts, and are defending all of these claims vigorously. The final disposition of these claims is not expected to have a material adverse effect on our consolidated financial position, but could possibly be material to our consolidated results of operations of any one period. Further, no assurance can be given that any adverse outcome would not be material to our consolidated financial position.

In June 1998, class action lawsuits were filed by then-shareholders of Tele-Communications, Inc. ("TCI") Series A TCI Group Common Stock ("Common A") against AT&T and the directors of TCI relating to the acquisition of TCI by AT&T, alleging that former members of the TCI board of directors breached their fiduciary duties to Common A shareholders by agreeing to transaction terms whereby holders of the Series B TCI Group Common Stock received a 10% premium over what Common A shareholders received.

In connection with the TCI acquisition (completed in early 1999), AT&T agreed under certain circumstances to indemnify TCI's former directors for certain liabilities, potentially including those incurred in connection with this action. Under the terms of our acquisition of AT&T Corp.'s cable business, (i) we agreed to indemnify AT&T for certain liabilities, potentially including those incurred by AT&T in connection with this action, and (ii) we assumed certain obligations of TCI to indemnify its former directors, potentially including those incurred in connection with this action.

In October 2006 these lawsuits were settled. We agreed to contribute approximately \$44 million to the settlement. This amount was paid in November 2006 and did not have a material impact on our results of operations for the year ended December 31, 2006. The settlement was approved in February 2007.

We are a defendant in several unrelated lawsuits claiming infringement of various patents relating to various aspects of our businesses. In certain of these cases other industry participants are also defendants, and also in certain of these cases we expect that any potential liability would be in part or in whole the responsibility of our equipment vendors pursuant to applicable contractual indemnification provisions. To the extent that the allegations in these lawsuits can be analyzed by us at this stage of their proceedings, we believe the claims are without merit and intend to defend the actions vigorously. The final disposition of these claims is not expected to have a material adverse effect on our consolidated financial position, but could possibly be material to our consolidated results of operations of any one period. Further, no assurance can be given that any adverse outcome would not be material to our consolidated financial position.

We are defendants in two purported class actions originally filed in the United States District Courts for the District of Massachusetts and the Eastern District of Pennsylvania, respectively. The potential class in the Massachusetts case is our subscriber base in the "Boston Cluster" area, and the potential class in the Pennsylvania case is our subscriber base in the "Philadelphia and Chicago clusters," as those terms are defined in the complaints. In each case, the plaintiffs allege that certain subscriber exchange transactions with other cable providers resulted in unlawful "horizontal market restraints" in those areas and seek damages pursuant to antitrust statutes, including treble damages.

As a result of recent events in both cases relating to the procedural issue of whether the plaintiffs' claims could proceed in court or, alternatively, whether the plaintiffs should be compelled to arbitrate their claims pursuant to arbitration clauses in their subscriber agreements, it has become more likely that these cases will proceed in court. Our motion to dismiss the Pennsylvania case on the pleadings was denied, and the plaintiffs have moved to certify a class action. We are opposing the plaintiffs' motion and are proceeding with class discovery. We have moved to dismiss the Massachusetts case. The Massachusetts case was recently transferred to the Eastern District of Pennsylvania and plaintiffs are seeking to consolidate it with the Pennsylvania case.

We believe the claims in these actions are without merit and are defending the actions vigorously. The final disposition of these claims is not expected to have a material adverse effect on our consolidated financial position, but could possibly be material to our consolidated results of operations of any one period. Further, no assurance can be given that any adverse outcome would not be material to our consolidated financial position.

We are subject to other legal proceedings and claims that arise in the ordinary course of our business. The amount of ultimate liability with respect to such actions is not expected to materially affect our financial position, results of operations or liquidity.

Our reportable segments consist of our Cable and Programming businesses. In evaluating the profitability of our segments, the components of net income (loss) below operating income (loss) before depreciation and amortization are not separately evaluated by our management. Assets are not allocated to segments for management reporting. Our financial data by business segment is as follows:

(in multions)	Cable <sup>(a)(b)</sup>	Programming <sup>(c)</sup>	Corporate and Other <sup>(d)(e)</sup>	Eliminations <sup>(e)(f)</sup>	Total
2006					
Revenues <sup>(g)</sup>	\$ 24,100	\$ 1,053	\$ 355	\$ (542)	\$ 24,966
Operating income (loss) before depreciation					
and amortization <sup>(h)</sup>	9,704	241	(357)	(146)	9,442
Depreciation and amortization	4,657	166	80	(80)	4,823
Operating income (loss)	5,047	75	(437)	(66)	4,619
Capital Expenditures	4,244	16	31	104	4,395
2005					
Revenues <sup>(g)</sup>	\$ 19,987	\$ 919	\$ 315	\$ (146)	\$ 21,075
Operating income (loss) before depreciation					
and amortization <sup>(h)()</sup>	7,947	272	(302)	155	8,072
Depreciation and amortization	4,346	154	71	(20)	4,551
Operating income (loss) <sup>(i)</sup>	3,601	118	(373)	175	3,521
Capital Expenditures	3,409	16	38	158	3,621
2004					
Revenues <sup>(g)</sup>	\$ 18,230	\$ 787	\$ 332	\$ (128)	\$ 19,221
Operating income (loss) before depreciation					
and amortization <sup>(h)(i)</sup>	6,940	269	(310)	281	7,180
Depreciation and amortization	4,102	162	105	(18)	4,351
Operating income (loss) <sup>(i)</sup>	2,838	107	(415)	299	2,829
Capital Expenditures	3,394	17	21	228	3,660

(a) For the years ended December 31, 2006, 2005 and 2004, Cable segment revenues were derived from the following services:

	2006	2005	2004
Video	62.6%	64.6%	67.0%
High-speed Internet	20.7	18.8	16.1
Phone	3.8	3.1	3.4
Advertising	6.4	6.4	6.6
Other	6.5	7.1	6.9
Total	100.0%	100.0%	100.0%

(b) Our regional sports and news networks (Comcast SportsNet, Comcast SportsNet Mid-Atlantic, Comcast SportsNet Chicago, Comcast SportsNet West, Cable Sports Southeast, MountainWest Sports Network and CN8 – The Comcast Network) are included in our Cable segment. To be consistent with our management reporting presentation, beginning August 1, 2006, the Cable segment also includes the operating results of the cable systems serving Houston, Texas held in the TKCCP (see Note 5). The operating results of the cable systems serving Houston, Texas are reversed in the Eliminations column to reconcile to our consolidated financial statements.

(c) Programming includes our consolidated national programming networks: El, Style, The Golf Channel, VERSUS, G4 and AZN Television.

(d) Corporate and Other includes Corncast Spectacor, a portion of operating results of our less than wholly owned technology development ventures (see "(e)" below), corporate activities and all other businesses not presented in our Cable or Programming segments.

(e) We consolidate our less than wholly owned technology development ventures, which we control or of which we are considered the primary beneficiary. These ventures are with various corporate partners, such as Motorola and Gernstar. The ventures have been created to share the costs of development of new technologies for set-top boxes and other devices. The results of these entities are included within Corporate and Other. Cost allocations are made to the Cable segment based on our percentage ownership in each entity. The remaining net costs related to the minority corporate partners are included in Corporate and Other.

(f) Included in the Eliminations column are intersegment transactions that our segments enter into with one another. The most common types of transactions are the following:

 our Programming segment generates revenue by selling cable network programming to our Cable segment, which represents a substantial majority of the revenue elimination amount

• our Cable segment receives incentives offered by our Programming segment when negotiating programming contracts that are recorded as a reduction of programming expenses

• our Cable segment generates revenue by selling the use of satellite feeds to our Programming segment

(g) Non-U.S. revenues were not significant in any period. No single customer accounted for a significant amount of our revenue in any period.

(h) To measure the performance of our operating segments, we use operating income before depreciation and amortization, excluding impairment charges related to fixed and intangible assets, and gains or losses from the sale of assets, if any. This measure eliminates the significant level of noncash depreciation and amortization expense that results from the capital-intensive nature of our obstinesses and from intangible assets recognized in business combinations. It is also unaffected by our capital structure or investment activities. We use this measure to evaluate our consolidated operating performance, the operating performance of our operating segments, and to allocate resources and capital to our operating segments. It is also a significant performance measure in our annual incentive compensation programs. We believe that this measure is useful to investors because it is one of the bases for companies or operating performance with other companies in our industries, although our measure may not be directly comparable to similar measures used by other companies. This measure should not be considered a substitute for operating income (loss), net income (loss), net cash provided by operating activities or other measures of performance or liquidity reported in accordance with GAAP.

(i) To be consistent with our management reporting presentation, the 2005 and 2004 segment amounts have been adjusted as if stock options had been expensed as of January 1, 2004 (see Note 10). The total adjustments are reversed in the Eliminations column to reconcile to our consolidated 2005 and 2004 amounts. For the years ended December 31, 2005 and 2004, the adjustments reducing operating income (loss) before depreciation and amortization by segment were as follows:

(in millions)	2005	2004
Cable	\$ 116	\$ 180
Programming	1	(4)
Corporate and Other	49	107
Total	\$ 166	\$ 283

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(in millions, except per share data)	Q	First uarter	-	Second Quarter	(	Third Quarter	Fourth Quarter		Totał Year
2006									
Revenues	\$5	,595	\$ !	5,908	\$	6,432	\$ 7,031	\$ 2	24,966
Operating income	1	,004		1,173		1,224	1,218		4,619
Income from continuing operations		438		399		969	<b>429</b> (a)		2,235
Income from discontinued operations		28		61		14	_		103
Gain on discontinued operations		_		_		234	<b>(39)</b> <sup>(a)</sup>		195
Net income	\$	466	\$	460	\$	1,217	\$ 390	\$	2,533
Basic earnings for common stockholders per common share <sup>(c)</sup>									
Income from continuing operations	\$	0.14	\$	0.13	\$	0.31	\$ 0.14	\$	0.71
Income from discontinued operations		0.01		0.02		_	-		0.03
Gain on discontinued operations		-		-		0.07	(.01)		0.06
Net income	\$	0.15	\$	0.15	\$	0.38	\$ 0.13	\$	0.80
Diluted earnings for common stockholders per common share <sup>(c)</sup>									
Income from continuing operations	\$	0.14	\$	0.13	\$	0.31	\$ 0.14	\$	0.70
Income from discontinued operations		0.01		0.02		_	_		0.03
Gain on discontinued operations		_		-		0.07	(0.01)		0.06
Net income	\$	0.15	\$	0.15	\$	0.38	\$ 0.13	\$	0.79
2005									
Revenues	\$5	,074	\$	5,301	\$	5,284	\$ 5,416	\$ 2	21,075
Operating income		829		1,002		841	849		3,521
Income from continuing operations		122		401		198	107		828
Income from discontinued operations		21		29		24	26		100
Net income	\$	143	\$	430	\$	222	\$ 133 <sup>(b)</sup>	\$	928
Basic earnings for common stockholders per common share <sup>(c)</sup>									
Income from continuing operations	\$	0.04	\$	0.12	\$	0.06	\$ 0.03	\$	0.25
Income from discontinued operations		_		0.01		0.01	0.01		0.03
Net income	\$	0.04	\$	0.13	\$	0.07	\$ 0.04	\$	0.28
Diluted earnings for common stockholders per common share <sup>(c)</sup>									
Income from continuing operations	\$	0.04	\$	0.12	\$	0.06	\$ 0.03	\$	0.25
Income from discontinued operations				0.01		0.01	0.01		0.03
Net income	\$	0.04	\$	0.13	\$	0.07	\$ 0.04	\$	0.28

(a) Includes adjustments reducing estimated gains recorded on transactions that closed in the third quarter of 2006.

(b) Includes refinement to our effective tax rate in the fourth quarter of 2005.

(c) Adjusted to reflect the Stock Split

Comcast Corporation and five of our cable holding company subsidiaries, Comcast Cable Communications, LLC ("CCCL"), Comcast Cable Communications Holdings, Inc. ("CCCH"), Comcast MO Group, Inc. ("Comcast MO Group"), Comcast Cable Holdings, LLC ("CCH"), and Comcast MO of Delaware, LLC ("Comcast MO of Delaware") fully and unconditionally guaranteed each other's debt securities. Comcast MO Group, CCH and Comcast MO of Delaware are collectively referred to as the "Combined CCHMO Parents."

In September 2005, Comcast Corporation unconditionally guaranteed Comcast Holdings' ZONES due October 2029 and its 10 1/2% Senior Subordinated Debentures due 2012, both of which were issued by Comcast Holdings; accordingly, we have added Comcast Holdings' condensed consolidated financial information for all periods presented. Our condensed consolidating financial information is as follows:

# **Condensed Consolidating Balance Sheet**

As of December 31, 2006

(in millions)	Comcast Parent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiaries	Consolidation	Consolidated Comcast Corporation
Assets								
Cash and cash equivalents	\$ 77	\$ -	\$ —	\$ -	\$ -	\$ 1,162	\$ -	\$ 1,239
Investments	-	-	-	-	-	1,735	-	1,735
Accounts receivable, net	-	-		-	-	1,450	_	1,450
Other current assets	15	1	-		-	762	-	778
Total current assets	92	1	_	-	_	5,109	_	5,202
Investments			_			8,847	_	8,847
Investments in and amounts due from								
subsidiaries eliminated upon consolidation	62,622	31,152	37,757	41,151	23,984	1,895	(198,561)	-
Property and equipment, net	17	-	1	-	-	21,230	_	21,248
Franchise rights	_	_	-	-	-	55,927	-	55,927
Goodwill	-	-	-	-	-	13,768	-	13,768
Other intangible assets, net	-		-	_		4,881	—	4,881
Other noncurrent assets, net	176	16	20	-	31	289	_	532
Total assets	\$ 62,907	\$ 31,169	\$ 37,778	\$ 41,151	\$ 24,015	\$ 111,946	\$ (198,561)	\$ 110,405
Liabilities and Stockholders' Equity								
Accounts payable and accrued expenses								
related to trade creditors	\$11	\$ -	\$	\$ -	\$	\$ 2,851	\$ —	\$ 2,862
Accrued expenses and other current			•					
liabilities	616	247	83	106	69	<b>1,9</b> 11	_	3,032
Deferred income taxes	-	-	-	-		563	-	563
Current portion of long-term debt		600	-	242		141	-	983
Total current liabilities	627	847	83	348	69	5,466	_	7,440
Long-term debt, less current portion	15,358	4,397	3,498	3,046	683	1,010	_	27,992
Deferred income taxes	4,638		-	-	887	21,564	_	27,089
Other noncurrent liabilities	1,117	46	-	-	76	5,237		6,476
Minority interest	-	-		_		241	-	241
Stockholders' Equity								
Common stock	35	-	_	_	-	-	-	35
Other stockholders' equity	41,132	25,879	34,197	37,757	22,300	78,428	(198,561)	41,132
Total stockholders' equity	41,167	25,879	34,197	37,757	22,300	78,428	(198,561)	41,167
Total liabilities and								
stockholders' equity	\$ 62,907	\$ 31,169	\$ 37,778	\$ 41,151	\$ 24,015	\$ 111,946	\$ (198,561)	\$ 110,405

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# **Condensed Consolidating Balance Sheet** As of December 31, 2005

(in millions)	Comcast Parent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Assets								
Cash and cash equivalents	\$	\$ -	\$	\$ —	\$ -	\$ 947	\$ -	\$ 947
Investments	-	-	-	_	_	148	_	148
Accounts receivable, net	-	-	-	_	_	1,008	-	1,008
Other current assets	16	-	-	-		669	-	685
Current assets of discontinued operations	-	-	_	_	-	60	_	60
Total current assets	16	-	-	_	_	2,832	_	2,848
Investments			_	_	-	12,675		12,675
Investments in and amounts due from								
subsidiaries eliminated upon consolidation	53,103	29,562	36,042	40,482	22,742	955	(182,886)	_
Property and equipment, net	11	-	2	-	3	17,688	_	17,704
Franchise rights	-	_	_	_	-	48,804	_	48,804
Goodwill	-	_	_	-	-	13,498	_	13,498
Other intangible assets, net	_	-		_	4	3,114	-	3,118
Other noncurrent assets, net	122	21	23	-	43	426	-	635
Other noncurrent assets of discontinued								
operations, net	-	-	_	_		4,118	_	4,118
Total assets	\$ 53,252	\$ 29,583	\$ 36,067	\$ 40,482	\$ 22,792	\$ 104,110	\$ (182,886)	\$ 103,400
Liabilities and Stockholders' Equity								
Accounts payable and accrued expenses								
related to trade creditors	\$	\$ -	\$ —	\$ -	\$ -	\$ 2.239	\$ -	\$ 2,239
Accrued expenses and other current				,	·	,	Ţ	+ -,
liabilities	447	224	113	127	89	1,482		2,482
Deferred income taxes		-	_	_	_	2		2
Current portion of long-term debt	_	620	-	995		74		1,689
Current liability of discontinued operations	_	-	_	-	_	112	_	112
Total current liabilities	447	844	113	1,122	89	3,909	_	6,524
Long term-debt, less current portion	8,243	4,988	3,498	3,318	981	654	-	21.682
Deferred income taxes	3,470			_	811	23,089	_	27,370
Other noncurrent liabilities	873	54		_	50	5,943	-	6,920
Minority interest	_		_	_	-	657	_	657
Noncurrent liabilities of discontinued								
operations	_	-	_	_	_	28	_	28
Stockholders' Equity								
Common stock	36		-	_	_	_	-	36
Other stockholders' equity	40,183	23,697	32,456	36,042	20,861	69,830	(182,886)	40,183
Total stockholders' equity	40,219	23,697	32,456	36,042	20,861	69,830	(182,886)	40,219
Total liabilities and								
stockholders' equity	\$ 53,252	\$ 29,583	\$ 36,067	\$ 40,482	\$ 22,792	\$ 104,110	\$ (182,886)	\$ 103,400

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# **Condensed Consolidating Statement of Operations** For the Year Ended December 31, 2006

(in millions)	Comcast Parent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiaries	Consolidation	Consolidated Comcast Corporation
Revenues								
Service revenues	\$ -	\$ -	\$ -	\$	\$ -	\$ 24,966	\$	\$ 24,966
Management fee revenue	526	193	298	298			(1,323)	
	526	193	298	298	8	24,966	(1,323)	24,966
Costs and Expenses								
Operating (excluding depreciation)	_		-	_	_	9,010	_	9,010
Selling, general and administrative	256	193	298	298	16	6,776	(1,323)	6,514
Depreciation	8	-	-	_	2	3,818		3, <b>8</b> 28
Amortization		-			4	991	_	995
	264	193	298	298	22	20,595	(1,323)	20,347
Operating income (loss)	262	_	_	_	(14)	4,371	-	4,619
Other Income (Expense)								
Interest expense	(776)	(400)	(325)	(259)	(68)	(236	) —	(2,064)
Investment income (loss), net	-	-	-	-	34	956		990
Equity in net income (losses) of affiliates	2,867	1,509	1,900	2,069	1,266	(138	) (9,597)	(124)
Other income (expense)	-	-	-	-	_	173	-	173
	2,091	1,109	1,575	1,810	1,232	755	(9,597)	(1,025)
Income (loss) from continuing operations								
before income taxes and minority interest	2,353	1,109	1,575	1,810	1,218	5,126	(9,597)	3,594
Income tax (expense) benefit	180	143	114	90	26	(1,900	) —	(1,347)
Income (loss) from continuing operations								
before minority interest	2,533	1,252	1,689	1,900	1,244	3,226	(9,597)	2,247
Minority interest		-	-	_	-	(12	) —	(12)
Income from continuing operations	2,533	1,252	1,689	1,900	1,244	3,214	(9,597)	2,235
Income from discontinued operations,								
net of tax	-	_	-	-	-	103	_	103
Gain on discontinued operations, net of tax			_			195	_	195
Net income	\$ 2,533	\$ 1,252	\$ 1,689	\$ 1,900	\$ 1,244	\$ 3,512	\$ (9,597)	\$ 2,533

# Condensed Consolidating Statement of Operations For the Year Ended December 31, 2005

(in millions)		icast arent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiarles	Elimination and Consolidation Adjustments	Consolia Con Corpor	ncast
Revenues										
Service revenues	\$	_	\$ -	\$ -	\$	\$ —	\$ 21,075	\$ -	\$ 21	.075
Management fee revenue		457	174	278	278	8		(1,195)		-
		457	174	278	278	8	21,075	(1,195)	21	,075
Costs and Expenses										
Operating (excluding depreciation)		-	-	_	_	_	7,513	-	7	,513
Selling, general and administrative		204	174	278	278	15	5,736	(1,195)	5	,490
Depreciation		3	_	_	_	3	3,407	_	3	,413
Amortization	_	-	_	-	-	10	1,128	-	1	,138
		207	174	278	278	28	17,784	(1,195)	17	,554
Operating income (loss)		250				(20)	3,291		3	,521
Other Income (Expense)										
Interest expense		(371)	(477)	(329)	(306)	(101)	(211	) –	(1	,795)
Investment income (loss), net		_	-	-	_	(16)	105			89
Equity in net income (losses) of affiliates	1	,007	1,372	605	804	977	43	(4,850)		(42)
Other income (expense)		_				-	(53	) —		(53)
		636	895	276	498	860	(116	) (4,850)	(1	,801
Income (loss) from continuing operations										
before income taxes and minority interest		886	895	276	498	840	3,175	(4,850)	1	,720
Income tax (expense) benefit	_	42	167	115	107	48	(1,352)	) —		(873)
Income (loss) from continuing operations										
before minority interest		928	1,062	391	605	888	1,823	(4,850)		847
Minority interest		_	-	-	-	_	(19	) –		(19)
Income from continuing operations	\$	928	\$ 1,062	\$ 391	\$ 605	\$ 888	\$ 1,804	\$ (4,850)	\$	828
Income from discontinued operations,										
net of tax		_			-	-	100	-		100
Net Income	\$	928	\$ 1,062	\$ 391	\$ 605	\$ 888	\$ 1,904	\$ (4,850)	\$	928

# **Condensed Consolidating Statement of Operations** For the Year Ended December 31, 2004

(in millions)	Comcast Parent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiaries	Consolidation	Consolidated Comcast Corporation
Revenues								
Service revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,221	\$	\$ 19,221
Management fee revenue	416	161	253	253	8		(1,091)	
	416	161	253	253	8	19,221	(1,091)	19,221
Costs and Expenses								
Operating (excluding depreciation)	-	_	_	-	-	7,036	_	7,036
Selling, general and administrative	168	161	253	253	13	5,248	(1,091)	5,005
Depreciation	2	-	_		3	3,192	-	3,197
Amortization					11	1,143		1,154
	170	161	253	253	27	16,619	(1,091)	16,392
Operating income (loss)	246	_	_		(19)	2,602		2,829
Other Income (Expense)								
Interest expense	(289)	(474)	(348)	(399)	(98)	(266)	- (	(1,874)
Investment income (loss), net	-	_	-	-	100	372	_	472
Equity in net income (losses) of affiliates	998	1,170	310	569	997	(216)	(3,909)	(81)
Other income (expense)						397		397
	709	696	(38)	170	999	287	(3,909)	(1,086)
Income (loss) from continuing operations								
before income taxes and minority interest	955	696	(38)	170	980	2,889	(3,909)	1,743
Income tax (expense) benefit	15	166	122	140	6	(1,250)	_	(801)
Income (loss) from continuing operations								
before minority interest	970	862	84	310	986	1,639	(3,909)	942
Minority interest	_		-			(14)		(14)
Income from continuing operations	970	862	84	310	986	1,625	(3,909)	928
Income from discontinued operations,								
net of tax			_		-	42		42
Net Income	\$ 970	\$ 862	\$ 84	\$ 310	\$ 986	\$ 1,667	\$ (3,909)	\$ 970

# Condensed Consolidating Statement of Cash Flows For the Year Ended December 31, 2006

(in milions)	Comcast Parent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Corncast Corporation
Operating Activities								
Net cash provided by (used in)								
operating activities	\$ 90	\$ (240)	\$ (226)	\$ (224)	\$ 20	\$ 7,198	\$	\$ 6,618
Financing Activities								
Proceeds from borrowings	7,474	_	-	_	-	23	-	7,497
Retirements and repayments of debt	(350)	(61 <del>9</del> )	_	(988)	(27)	(55)		(2,039)
Repurchases of common stock	(2,347)	_	_	_	-	-	-	(2,347)
Issuances of common stock	410	_	-	_	-	-	-	410
Other	33	-	-	_	-	(8)	) –	25
Net cash provided by (used in)								
financing activities	5,220	(619)	-	(988)	(27)	(40)	- (	3,546
Investing Activities								
Net transactions with affiliates	(5,272)	859	226	1,212	(3)	2,978	-	
Capital expenditures	(8)	-	_	_		(4,387)	) —	(4,395)
Cash paid for intangible assets	—	_	-		_	(306)	) —	(306)
Acquisitions, net of cash acquired	_	_	-	-	-	(5,110)	) —	(5,110)
Proceeds from sales and restructuring								
of investments	47	-		-	10	2,663	_	2,720
Purchases of investments	-	-	-	-	-	(2,812)	) —	(2,812)
Proceeds from sales (purchases) of								
short-term investments, net	_	_	-	-	_	33	-	33
Other	_				_	(2)	) —	(2
Net cash provided by (used in)								
investing activities	(5,233)	859	226	1,212	7	(6,943)	) —	(9,872
Increase in cash and cash equivalents	77	_	_		_	215	_	292
Cash and cash equivalents,								
beginning of year			-	-	-	947	_	947
Cash and cash equivalents, end of year	\$ 77	\$ -	\$ -	\$ -	\$ -	\$ 1,162	\$-	\$ 1,239

# Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2005

(in millions)	Comcast Parent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiarles	Consolidation	Consolidated Comcast Corporation
Operating Activities			_					
Net cash provided by (used in)								
operating activities	\$ 61	\$ (256)	\$ (204)	\$ (387)	\$ (110)	\$ 5,731	\$ —	\$ 4,835
Financing Activities								
Proceeds from borrowings	3,972	-	-	-	-	6	_	3,978
Retirements and repayments of debt	-	(700)	-	(1,628)	(13)	(365)	-	(2,706)
Repurchases of common stock	(2,313)	-	-		-		_	(2,313)
Issuances of common stock	93		-	_	_	-	-	93
Other	-	_	-	-	-	15	-	15
Net cash provided by (used in)								
financing activities	1,752	(700)	-	(1,628)	(13)	(344)		(933)
Investing Activities								
Net transactions with affiliates	(1,813)	956	204	2,015	123	(1,485)	-	_
Capital expenditures	_	_	_	-	-	(3,621)	-	(3,621)
Cash paid for intangible assets	-	-	-	-	_	(281)	-	(281)
Acquisitions, net of cash acquired		-	-	-	-	(199)	- (	(199)
Proceeds from sales and restructuring								
of investments	-	-	-	-	-	861	-	861
Purchases of investments	-	-	-	-	-	(306)	-	(306)
Proceeds from sales (purchases) of								
short-term investments, net	_	-	-	-	_	(86)		(86)
Other	-				_	(116)		(116
Net cash provided by (used in)								
investing activities	(1,813)	956	204	2,015	123	(5,233)	) -	(3,748
Increase in cash and cash equivalents	_	_		_	-	154	-	154
Cash and cash equivalents,								
beginning of year	-	_	-	_	-	793	_	793

# Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2004

(in millions)	Comcast Parent	CCCL Parent	CCCH Parent	Combined CCHMO Parents	Comcast Holdings	Non- Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Operating Activities								
Net cash provided by (used in)								
operating activities	\$ 482	\$ (143)	\$ (155)	\$ (478)	\$8	\$ 6,368	\$	\$ 6,082
Financing Activities								
Proceeds from borrowings	620	_	400	-	-	10	_	1,030
Retirements and repayments of debt	(300)	(561)	(400)	(306)	_	(756)	-	(2,323)
Repurchases of common stock	(1,361)	-	_	_	-	_	-	(1,361)
Issuances of common stock	113				_	-	-	113
Other	8		-	-	-	17	-	25
Net cash provided by (used in)								
financing activities	(920)	(561)	_	(306)	_	(729)	_	(2,516)
Investing Activities								
Net transactions with affiliates	438	704	155	784	(8)	(2,073)	-	_
Capital expenditures	_	_	_		_	(3,660)		(3,660)
Cash paid for intangible assets	_	-	_	_	-	(615)	-	(615)
Acquisitions, net of cash acquired	_	-			-	(296)	_	(296)
Proceeds from sales and restructuring								
of investments	_	_		_	-	228	-	228
Purchases of investments	_	-	_	-	-	(156)	-	(156)
Proceeds from sales (purchases) of								
short-term investments, net	_	_	_		_	(13)		(13)
Proceeds from settlement of contract								
of acquired company	_	_	_		-	26	_	26
Other	_	-	<del></del> .	-	_	(26)	-	(26)
Net cash provided by (used in)								
investing activities	438	704	155	784	(8)	(6,585)	_	(4,512)
Decrease in cash and cash equivalents		-	_	_	-	(946)		(946)
Cash and cash equivalents,								
beginning of year	-	-	-	_	-	1,739	_	1,739
Cash and cash equivalents, end of year	\$ -	\$ -	\$ -	\$	\$	\$ 793	\$-	\$ 793

# **Reconciliation of Non-GAAP Measures**

\$ 4,619
4,823
\$ 9,442

(a) Operating Cash Flow (as presented above) is defined as operating income before depreciation and amortization, excluding impairment charges related to fixed and intangible assets and gains or losses on sale of assets, if any.

# (in millions) Net Cash Provided by Operating Activities Capital Expenditures Cash Paid For Intangible Assets Nonoperating Items, Net of Tax

Nonoperating Items, Net of Tax706Free Cash Flow(a)\$ 2,623

(a) Free Cash Flow (as presented above) is defined as "Net Cash Provided by Operating Activities" (as stated in our Consolidated Statement of Cash Flows) reduced by capital expenditures and cash paid for intangible assets; and increased by any payments related to certain nonoperating items, net of estimated tax benefits (such as income taxes on investment sales, and nonrecurring payments related to income tax and litigation contingencies of acquired companies).

(in m鶘ons)	Cable	Pro Forma Adjustments <sup>(a)</sup>	Cable Pro Forma	Pro Forma % Growth	% Growth
2006					
Revenue	\$ 24,100	\$ 2,239	\$ 26,339	12%	21%
Operating Expenses (excluding depreciation			-		
and amortization)	14,396	1,432	15,828		
Operating Cash Flow	\$ 9,704	\$ 807	\$ 10,511	15%	22%
Depreciation and Amortization	4,657	608	5,265		
Operating Income	\$ 5,047	\$ 199	\$ 5,246		
2005					
Revenue	\$ 19,987	\$3,569	\$ 23,556		
Operating Expenses (excluding depreciation					
and amortization)	11,924	2,384	14,308		
Stock option adjustment <sup>(b)</sup>	116	-	116		
Operating Cash Flow	\$ 7,947	\$ 1,185	\$ 9,132		
Depreciation and Amortization	4,346	1,134	5,480		
Operating Income	\$ 3,601	\$ 51	\$ 3,652		

\$6,618

(4,395)

(306)

(a) Pro forma results adjust only for certain acquisitions and dispositions, including Susquehanna Communications (April 2006), the Adelphia and Time Warner transactions (July 2006) and the dissolution of the Texas and Kansas City cable partnership (effective January 1, 2007). Cable segment results are presented as if the transactions noted above were effective on January 1, 2005.

(b) To be consistent with our management reporting, the 2005 Cable segment amounts have been adjusted as if stock options had been expensed as of January 1, 2005.

# Market for the Registrant's Common Equity

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol CMCSA and our Class A Special common stock is listed on the Nasdaq Global Select Market under the symbol CMCSK. There is no established public trading market for our Class B common stock. Our Class B common stock can be converted, on a share for share basis, into Class A or Class A Special common stock. The following table sets forth, for the indicated periods, the high and low sales prices of our Class A and Class A Special common stock (adjusted to reflect the Stock Split).

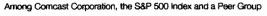
	Cla	ss A	Class A Special		
	High	Low	High	Low	
2006					
First Quarter	\$ 18.97	\$ 16.90	\$ 18.87	\$ 16.73	
Second Quarter	22.37	17.45	22.27	17.33	
Third Quarter	24.77	20.67	24.74	20.64	
Fourth Quarter	28.94	24.17	28.69	24.14	
2005					
First Quarter	\$ 23.00	\$ 20.69	\$ 22.77	\$ 20.33	
Second Quarter	22.69	20.37	22.47	19.80	
Third Quarter	21.54	19.16	21.25	18.82	
Fourth Quarter	19.56	17.20	19.24	17.01	

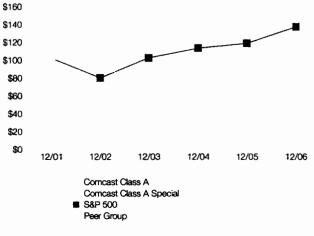
We have not declared and paid any cash dividends on our Class A, Class A Special or Class B common stock in our last two fiscal years and do not intend to do so for the foreseeable future.

As of December 31, 2006, there were 921,275 record holders of our Class A common stock, 2,266 record holders of our Class A Special common stock and three record holders of our Class B common stock.

# Stock Performance Graph

The following graph compares the yearly percentage change in the cumulative total shareholder return on our Class A common stock and Class A Special common stock during the five years ended December 31, 2006, with the cumulative total return on the Standard & Poor's 500 Stock Index and with a selected peer group consisting of us and other companies engaged in the cable, telecommunications and media industries. This peer group consists of Cablevision Systems Corporation (Class A), Time Warner Inc., The DirecTV Group Inc. and Echostar Communications Corp. The comparison assumes \$100 was invested on December 31, 2001, in our Class A common stock and Class A Special common stock and in each of the following indices and assumes the reinvestment of dividends.





(in dollars)	2002	2003	2004	2005	2006
Comcast Class A	65	91	92	72	118
Comcast Class A Special	63	87	91	71	116
S&P 500 Stock Index	78	100	111	117	135
Peer Group Index	46	64	67	57	84

# Selected Financial Data

Year Ended December 31 (in millions, except per share data)	2006	2005	2004	2003		2002
Statement of Operations Data						
Revenues	\$ 24,966	\$ 21,075	\$ 19,221	\$ 17,330	\$	7,997
Operating income	4,619	3,521	2,829	1,938		948
Income (loss) from continuing operations	2,235	828	928	(222)		(452)
Discontinued operations <sup>(a)(b)</sup>	298	100	42	3,462		178
Net income (loss)	2,533	928	970	3,240		(274)
Basic earnings (loss) for common stockholders per common share <sup>(c)</sup>						
Income (loss) from continuing operations	\$ 0.71	\$ 0.25	\$ 0.28	\$ (0.07)	\$	(0.27)
Discontinued operations <sup>(a)(b)</sup>	0.09	0.03	0.01	1.02		0.11
Net income (loss)	\$ 0.80	\$ 0.28	\$ 0.29	\$ 0.95	\$	(0.16)
Diluted earnings (loss) for common stockholders per common share <sup>(c)</sup>						
Income (loss) from continuing operations	\$ 0.70	\$ 0.25	\$ 0.28	\$ (0.07)	\$	(0.27)
Discontinued operations <sup>(a)(b)</sup>	0.09	0.03	0.01	1.02		0.11
Net income (loss)	\$ 0.79	\$ 0.28	\$ 0.29	\$ 0.95	\$	(0.16)
Balance Sheet Data (at year end)						
Total assets	\$ 110,405	\$ 103,400	\$ 105,035	\$ 109,348	\$1	113,485
Long-term debt	27,992	21,682	20,093	23,835		27,956
Stockholders' equity	41,167	40,219	41,422	41,662		38,329
Statement of Cash Flows Data						
Net cash provided by (used in):						
Operating activities	\$ 6,618	\$ 4,835	\$ 6,082	\$ 2,686	\$	2,518
Financing activities	3,546	(933)	(2,516)	(7,048)		(1,005)
Investing activities	(9,872)	(3,748)	(4,512)	5,239		(1,125)

(a) In July 2006, in connection with the transactions with Adelphia and Time Warner, we transferred our previously owned cable systems located in Los Angeles, Cleveland and Datas to Time Warner Cable. These cable systems are presented as discontinued operations for the years ended on or before December 31, 2006 (see Note 5 to our consolidated financial statements).

(b) In September 2003, we sold our interest in QVC to Liberty Media Corporation. QVC is presented as a discontinued operation for the years ended on and before December 31, 2003.

(c) Adjusted to reflect the Stock Split.

# Board of Directors and Corporate Executives

S. Decker Anstrom President and Chief Operating Officer Landmark Communications, Inc.

Kenneth J. Bacon Executive Vice President Housing and Community Development Fannie Mae

Sheldon M. Bonovitz Chairman and Chief Executive Officer Duane Morris LLP Edward D. Breen Chairman and Chief Executive Officer Tyco International, Ltd.

Julian A. Brodsky Non-Executive Vice Chairman

Joseph J. Collins Chairman Aegis, LLC Retired Chairman and Chief Executive Officer Time Warner Cable J. Michael Cook Retired Chairman and Chief Executive Officer Deloitte & Touche LLP

Jeffrey A. Honickman Chief Executive Officer Pepsi-Cola and National Brand Beverage, Ltd.

Brian L. Roberts Chairman and CEO Ralph J. Roberts Founder Chairman, Executive and Finance Committee

**Dr. Judith Rodin** President The Rockefeller Foundation

Michael I. Sovern Chairman Sotheby's Holdings, Inc.

Brian L. Roberts Chairman and Chief Executive Officer

Ralph J. Roberts Founder Chairman, Executive and Finance Committee

John R. Alchin Executive Vice President and Co-Chief Financial Officer

Stephen B. Burke Executive Vice President and Chief Operating Officer President, Comcast Cable

David L. Cohen Executive Vice President

Lawrence S. Smith Executive Vice President and Co-Chief Financial Officer

Amy L. Banse Senior Vice President Interactive Media President Comcast Interactive Media Arthur R. Block Senior Vice President, General Counsel and Secretary

Mark A. Coblitz Senior Vice President Strategic Planning

Robert S. Pick Senior Vice President Corporate Development

Lawrence J. Salva Senior Vice President, Chief Accounting Officer and Controller

C. Stephen Backstrom Vice President Taxation

Payne D. Brown Vice President Strategic Initiatives

Karen Dougherty Buchholz Vice President Administration Joseph F. DiTrolio Vice President Financial Operations

Marlene S. Dooner Vice President Investor Relations

William E. Dordelman Vice President Finance

Kamal Dua Vice President Internal Audit and General Auditor

Leonard J. Gatti Vice President Financial Reporting

Gregg M. Goldstein Vice President Corporate Development

Kerry Knott Vice President Government Affairs Charisse R. Lille Vice President Human Resources

Kenneth Mikalauskas Vice President Finance

Marc A. Rockford Vice President and Senior Deputy General Counsel

D'Arcy F. Rudnay Vice President Corporate Communications

Joseph W. Waz, Jr. Vice President External Affairs and Public Policy Counsel

# **Division Executives**

Stephen B. Burke President

**David A. Scott** Executive Vice President Finance and Administration

David N. Watson Executive Vice President Operations

Madison Bond Executive Vice President Content Acquisition

David A. Juliano Executive Vice President Marketing and Product Development

Jeff Shell President

Joseph M. Donnelly Chief Financial Officer

**David T. Cassaro** President Comcast Network Advertising Sales

Arrry L. Banse President

Edward M. Snider Chairman

Fred A. Shabel Vice Chairman John D. Schanz Executive Vice President National Engineering and Technology Operations

Tony G. Werner Executive Vice President and Chief Technology Officer

Catherine Avgiris Senior Vice President and General Manager Voice Services

Greg R. Butz Senior Vice President Product Development General Manager Media Services

Ted Harbert President and CEO Comcast Entertainment Group

Gavin Harvey President VERSUS

David Manougian Chief Executive Officer The Golf Channel

Samuel H. Schwartz Executive Vice President Strategy and Development

Peter A. Luukko President Douglas Gaston General Counsel

Suzanne L. Keenan Senior Vice President Customer Service and Comcast University

Charisse R. Lille Senior Vice President Human Resources

Kevin M. Casey President Northern Division

William Connors President Midwest Division

Diane L. Robina President Emerging Networks

Rod Shanks President AZN

**Neal Tiles** President G4 Michael A. Doyle President Eastern Division

**Bradley P. Dusto** President Western Division

John H. Ridali President Southern Division

William R. Stemper President Comcast Business Services

Charles W. Thurston President Comcast Spotlight

Sandy Wax President and General Manager PBS KIDS Sprout

Jack L. Williams President Comcast Sports Management Services President and Chief Executive Offier Comcast SportsNet

Sanford Lipstein Executive Vice President Finance and Chief Financial Officer Philip I. Weinberg Executive Vice President and General Counsel

# Shareholde: Information

# Corporate Headquarters

#### Stock Listings

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# Stock Transfer Agent and Registrar

Shareholder Services The parameters of the device of the service of the Parameters of the parameters of the service of the service of the service of the service of the parameters the parameters of the service of t



# Investor Relations

#### 2006 Annual Report on Form 10-K

2006 Annual Report on Form 10-K The second second

# Stock Split

Stock Split store source of the first of the store of the store approxima-tees of the store the store of the store

# 2007 Annual Meeting of Shareholders

# Legal Counsel

# Independent Registered Public Accounting Firm

# comcast

1600 Murket Street Philadelphia, PA 49100-2146 215-665-1700 Aww.comcast.com

> . .

# SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

**FORM 10-K** 

(Mark One)

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ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2006

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES **EXCHANGE ACT OF 1934** 

> FOR THE TRANSITION PERIOD FROM то

Commission file number 001-3287



COMCAST CORPORATION

(Exact name of registrant as specified in its charter)

PENNSYLVANIA

(State or other jurisdiction of incorporation or organization)

27-0000798 (I.R.S. Employer Identification No.)

1500 Market Street, Philadelphia, PA (Address of principal executive offices)

19102-2148 (Zip Code)

Registrant's telephone number, including area code: (215) 665-1700

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of Each Class

Name of Each Exchange on which Registered Nasdaq Global Select Market Nasdaq Global Select Market New York Stock Exchange New York Stock Exchange New York Stock Exchange New York Stock Exchange New York Stock Exchange

Class A Common Stock, \$0.01 par value Class A Special Common Stock, \$0.01 par value 2.0% Exchangeable Subordinated Debentures due 2029 7.00% Notes due 2055 7.00% Notes due 2055, Series B 8.375% Guaranteed Notes due 2013 9.455% Guaranteed Notes due 2022

> SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: NONE

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes 🖾 No 🗌

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes 🗋 No 🖂

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

# Yes 🖾 No 🗌

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendments to this Form 10-K.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one): Non-accelerated filer

Large accelerated filer X Accelerated filer

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes 🗌 No 🖂

As of June 30, 2006, the aggregate market value of the Class A common stock and Class A Special common stock held by non-affiliates of the Registrant was \$44.708 billion and \$23.300 billion, respectively.

As of December 31, 2006, after giving effect to our February 2007 stock split, there were 2,060,357,960 shares of Class A common stock, 1,049,725,007 shares of Class A Special common stock and 9,444,375 shares of Class B common stock outstanding.

# DOCUMENTS INCORPORATED BY REFERENCE

Part II and IV-Portions of the Registrant's Annual Report to Shareholders for the year ended December 31, 2006.

Part III-The Registrant's definitive Proxy Statement for its Annual Meeting of Shareholders presently scheduled to be held in May 2007.

# COMCAST CORPORATION 2006 ANNUAL REPORT ON FORM 10-K

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This Annual Report on Form 10-K is for the year ended December 31, 2006. This Annual Report on Form 10-K modifies and supersedes documents filed prior to it. The Securities and Exchange Commission ("SEC") allows us to "incorporate by reference" information that we file with them, which means that we can disclose important information to you by referring you directly to those documents. Information incorporated by reference is considered to be part of this Annual Report on Form 10-K. In addition, information that we file with the SEC in the future will automatically update and supersede information contained in this Annual Report on Form 10-K. Throughout this Annual Report on Form 10-K, we refer to Comcast Corporation as "Comcast"; Comcast and its consolidated subsidiaries as "we," "us" and "our;" and Comcast Holdings Corporation as "Comcast Holdings."

# **ITEM 1: BUSINESS**

We are the largest cable operator in the United States and offer a variety of consumer entertainment and communication products and services. As of December 31, 2006, our cable systems served approximately 23.4 million video subscribers, 11 million high-speed Internet subscribers and 2.4 million phone subscribers and passed approximately 45.7 million homes in 39 states and the District of Columbia. We were incorporated under the laws of Pennsylvania in December 2001. Through our predecessors (including our immediate predecessor, Comcast Holdings), we have developed, managed and operated cable systems since 1963.

We classify our operations in two reportable segments: Cable and Programming. Our Cable segment, which generates approximately 95% of our consolidated revenues, manages and operates our cable systems, including video, high-speed Internet and phone services ("cable services"), as well as our regional sports and news networks.

Our Programming segment consists of our six consolidated national programming networks: E!, Style, The Golf Channel, VERSUS (formerly known as OLN), G4 and AZN Television.

Our other business interests include Comcast Spectacor, which owns the Philadelphia Flyers, the Philadelphia 76ers and two large multipurpose arenas in Philadelphia and manages other facilities for sporting events, concerts and other events. Comcast Spectacor and all other consolidated businesses not included in our Cable or Programming segment are included in "Corporate and Other" activities.

On January 31, 2007, our Board of Directors approved a three-for-two stock split in the form of a 50% stock dividend (the "Stock Split") payable on February 21, 2007, to shareholders of record on February 14, 2007. The number of shares outstanding and related amounts presented in this Annual Report on Form 10-K have been adjusted to reflect the Stock Split for all periods presented.

For financial and other information on our segments, refer to Note 14 to our consolidated financial statements included in our 2006 Annual Report to Shareholders, which is filed as Exhibit 13.1 to, and portions of which are incorporated by reference in, this Annual Report on Form 10-K.

# **AVAILABLE INFORMATION AND WEB SITES**

Our phone number is (215) 665-1700, and our principal executive offices are located at 1500 Market Street, Philadelphia, PA 19102-2148. The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to such reports filed with or furnished to the SEC pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") are available free of charge on the SEC's Web site at <u>www.sec.gov</u> and on our Web site at <u>www.comcast.com</u> as soon as reasonably practicable after such reports are electronically filed with the SEC. The information posted on our Web site is not incorporated into our SEC filings.

# GENERAL DEVELOPMENTS OF OUR BUSINESSES

We operate our businesses in an increasingly competitive, highly regulated and technologically complex environment. During 2006, we continued to focus on our strategy of growth in subscribers for our products and strvices. Our Cable business continued the deployment and marketing of our digital phone service ("Comcast Digital Voice") and additional digital cable services, such as video on demand, which we refer to as "ON DEMAND," Digital Video Recorder ("DVR") and High Definition Television ("HDTV"). Our Programming business expanded its ownership and management of programming businesses.

The following are the more significant developments during 2006:

- completed transactions with Adelphia and Time Warner that resulted in a net increase of 1.7 million video subscribers, a net cash payment by us of approximately \$1.5 billion and the disposition of our ownership interest in Time Warner Cable Inc. ("TWC") and Time Warner Entertainment Company, L.P. ("TWE"), the assets of two cable system partnerships and the transfer of our previously owned cable systems in Los Angeles, Cleveland and Dallas. We collectively refer to these transactions as the "Adelphia and Time Warner transactions."
- initiated the dissolution of the Texas and Kansas City Cable Partnership ("TKCCP") that resulted in our acquisition of cable systems serving Houston, Texas (approximately 700,000 video subscribers) in January 2007
- acquired the cable systems of Susquehanna Communications serving approximately 200,000 video subscribers for approximately \$775 million
- acquired the 39.5% interest in E! Entertainment Television (which operates the E! and Style
  programming networks) that we did not already own for approximately \$1.2 billion
- participated in a consortium of investors ("SpectrumCo") that acquired wireless spectrum licenses covering approximately 91% of the population in the United States for approximately \$2.4 billion (our portion was \$1.3 billion)
- repurchased approximately 113 million shares (adjusted to reflect the Stock Split) of our Class A Special common stock pursuant to our Board-authorized share repurchase program for approximately \$2.3 billion

#### DESCRIPTION OF OUR BUSINESSES

#### **Cable Segment**

The table below summarizes certain information for our cable operations as of December 31. In July 2006, we transferred our previously owned cable systems located in Los Angeles. Cleveland and Dallas ("Concast Exchange Systems") to Time Warner Cable. The information provided in the table below excludes the Comcast Exchange Systems for all dates presented.

	2006	2005	2004	2003	2002
Homes and subscribers in millions:					
Video					
Homes Passed <sup>(a)</sup>	45.7	38.6	37.8	36.9	36.2
Subscribers <sup>(b)</sup>	23.4	20.3	20.5	20.4	20.2
Penetration	51.3%	52.7%	54.1%	55.1%	55.9%
Digital Cable					
Subscribers <sup>(c)</sup>	12.1	9.1	8.1	7.1	6.2
Penetration	51.9%	44.8%	39.4%	35.1%	30.6%
High-Speed Internet					
"Available" Homes <sup>(d)</sup>	45.2	38.2	37.1	32.2	30.1
Subscribers	11.0	8.1	6.6	5.0	3.4
Penetration	24.4%	21.1%	17.8%	15.4%	11.2%
Phone					
"Available" Homes <sup>(d)</sup>	31.5	19.6	8.9	7.9	8.1
Subscribers	2.4	1.2	1.1	1.1	1.2
Penetration	7.6%	6.0%	12.2%	14.2%	14.9%

All percentages are calculated based on actual amounts. Minor differences may exist due to rounding.

- (a) A home is "passed" if we can connect it to our distribution system without further extending the transmission lines. As described in Note <sup>(b)</sup> below, in the case of certain multiple dwelling units ("MDUs"), such as apartment buildings and condominium complexes, homes "passed" are counted on an adjusted basis.
   "Homes passed" is an estimate based on the best available information.
- (b) Generally, a dwelling or commercial unit with one or more television sets connected to a system counts as one cable subscriber. In the case of some MDUs, we count homes passed and cable subscribers on a Federal Communications Commission ("FCC") equivalent basis by dividing total revenue received from a contract with an MDU by the standard residential rate where the specific MDU is located.
- (c) A dwelling with one or more digital set-top boxes counts as one digital cable subscriber. On average, as of December 31, 2006, each digital cable subscriber had 1.5 digital set-top boxes.
- (d) A home passed is "available" if we can connect it to our distribution system without further upgrading the transmission lines and if we offer the service in that area. Available homes for phone include digital phone and circuit-switched homes.

#### **Cable Services**

We offer a variety of services over our cable systems, including video, high-speed Internet and phone.

With our cable system upgrade substantially complete, we are now focusing our technology investments on extending the reach and capacity of our networks, improving network efficiency, increasing the capacity and improving the functionality of advanced set-top boxes, developing cross-service features and functionality, developing interactive services and integrating phone features with our high-speed Internet service and our advanced set-top boxes.

Substantially all of our subscribers are residential customers. We also tailor our cable services to the needs of businesses, such as restaurants, hotels and small businesses. We expect the number of business services subscribers to grow substantially over the next several years.

#### Video Services

We offer a full range of video services. We tailor our channel offerings for each system serving a particular geographic area according to applicable local and federal regulatory requirements, programming preferences and demographics. Subscribers typically pay us on a monthly basis and generally may discontinue services at any time. Monthly subscription rates and related charges vary according to the type of service selected and the type of equipment the subscriber uses. Our video service offerings include the following:

*Basic cable.* Our basic cable services consist of a limited basic service with access to between 10 and 20 channels of programming and an expanded basic service with access to between 60 and 80 channels of programming. These services generally consist of programming provided by national and local broadcast networks, national and regional cable networks, and governmental and public access programming.

Digital cable. Our digital cable services consist of a digital starter cable service, a full digital cable service, and some specialty tiers with sports, family or ethnic themes. The digital starter cable service uses a digital set-top box to deliver between 60 and 80 channels of video programming, multiple music channels, an interactive program guide and a partial ON DEMAND library. Full digital cable services also use a digital set-top box to deliver over 250 channels of video programming, multiple music channels, an interactive program guide, access to a full ON DEMAND library, and multiple music channels, an interactive program guide, access to a full ON DEMAND library, and multiple offerings from any premium channel programming purchased by the subscriber (including programming that varies as to time of broadcast and theme of content).

Video on demand. Our video on demand service, which we refer to as ON DEMAND, allows our digital starter cable and full digital cable subscribers the opportunity to choose from a library of programs, start the programs at whatever time is convenient, and pause, rewind or fast-forward the programs. A substantial portion of our ON DEMAND content is available to our digital cable subscribers at no additional charge.

Subscription video on demand. Our subscription video on demand service provides subscribers with ON DEMAND access to packages of programming that are either associated with a particular premium content provider to which they already subscribe, such as HBO On-Demand, or are otherwise made available on a subscription basis. Certain selected packages of programming are available for an additional fee.

*High-Definition Television.* Our HDTV service provides our digital cable subscribers with improved, high-resolution picture quality, improved audio quality and a wide-screen format. Our HDTV service offers a broad selection of high-definition programming with access up to approximately 20 high-definition channels, including most major broadcast networks, leading national cable networks, premium channels and regional sports networks. In addition, our ON DEMAND service provides more than 150 HDTV programming choices.

Digital Video Recorder. Our DVR service lets digital cable subscribers select, record and store programs and play them at whatever time is convenient. DVR service also provides the ability to pause and rewind "live" television.

Premium channel programming. Our premium channel programming service, which includes cable networks such as HBO, Showtime, Starz and Cinemax, generally offers, without commercial interruption, feature motion pictures, live and taped sporting events, concerts and other special features.

*Pay-per-view programming.* Our pay-per-view service allows our cable subscribers to order, for a separate fee, individual movies and special-event programs, such as professional boxing, professional wrestling and concerts, on an unedited, commercial-free basis.

#### High-Speed Internet Services

We offer high-speed Internet service with Internet access at downstream speeds from 6Mbps to 16Mbps, depending on the level of service selected. This service also includes our interactive portal, Comcast.net, which provides multiple e-mail addresses and online storage, as well as a variety of proprietary content and value-added features and enhancements that are designed to take advantage of the speed of the Internet service we provide.

#### **Phone Services**

We offer Comcast Digital Voice, our IP-enabled phone service that provides unlimited local and domestic long-distance calling, including features such as Voice Mail, Caller ID and Call Waiting. As of December 31, 2006, Comcast Digital Voice service was available to 32 million homes. We anticipate that, by the end of 2007, approximately 85% of our homes passed will have access to Comcast Digital Voice.

In some areas, we provide our circuit-switched local phone service. Subscribers to this service have access to a full array of calling features and third-party long-distance services. At this time, we are now focusing our marketing efforts on Comcast Digital Voice.

#### Advertising

As part of our programming license agreements with programming networks, we often receive an allocation of scheduled advertising time that we may sell to local, regional and national advertisers. We also coordinate the advertising sales efforts of other cable operators in some markets, and in other markets we have formed and operate advertising interconnects, which establish a physical, direct link between multiple cable systems and provide for the sale of regional and national advertising across larger geographic areas than could be provided by a single cable operator.

#### **Regional Sports and News Networks**

Our regional sports and news networks include Comcast SportsNet (Philadelphia), Comcast SportsNet Mid-Atlantic (Baltimore/Washington), Cable Sports Southeast, CN8—The Comcast Network, Comcast SportsNet Chicago, MountainWest Sports Network and Comcast SportsNet West (Sacramento). These networks earn revenue through the sale of advertising time and from monthly per subscriber license fees paid by cable system operators and direct broadcast satellite ("DBS") companies.

#### **Other Revenue Sources**

We also generate revenues from installation services, commissions from third-party electronic retailing and from other services, such as providing businesses with data connectivity and networked applications.

#### Sources of Supply

To offer our video services, we license from programming networks the substantial majority of the programming we distribute (both channels and ON DEMAND programs) for which we generally pay a monthly fee on a per video subscriber, per channel basis. We attempt to secure long-term licenses with volume discounts and/or marketing support and incentives for this programming. We also license individual programs or packages of programs from program suppliers for our ON DEMAND service, generally under shorter-term agreements.

Our video programming expenses are increased by the growth in the number of video subscribers, the increase in the number of channels and programs we provide, and increases in license fees. We expect our programming expenses to continue to be our largest single expense item and to increase in the future. In recent years, the cable and satellite television industries have experienced a substantial increase in the cost of programming, particularly sports programming. We anticipate that these increases may be mitigated, to some extent, by volume discounts.

To offer our high-speed Internet portal service, we license the software products (such as e-mail) and content (such as news feeds) that we integrate into our service from a variety of suppliers under multiyear contracts in which we generally pay a monthly fee on a per subscriber or fixed fee basis.

To offer Comcast Digital Voice, we license the software products (such as voice mail) that we integrate into our service from a variety of suppliers under multiyear contracts and payment is based upon consumption of the related services.

#### Customer and Technical Service

We service our subscribers through local, regional and national call and technical centers. Generally, our call centers provide 24/7 call-answering capability, telemarketing and other services. Our technical services function performs various tasks, including installations, transmission and distribution plant maintenance, plant upgrades and activities related to customer service.

#### **Technology Development**

Historically, we have relied on third-party hardware and software vendors for many of the technologies needed for the operation of our businesses, the addition of new features to existing services, and the development and commercialization of new service offerings. In recent years, we have begun developing strategically important software and technologies internally and integrating third-party software to our specifications. We have arranged for long-term access rights to national fiber-based networks that we actively manage to interconnect our local and regional distribution systems and to facilitate the efficient delivery of our services. We expect these efforts to continue and expand in the future. These efforts require greater initial expenditures than would be required if we continued to purchase or license these products and services from third parties.

We have begun to explore various ways to offer wireless services. We have entered into a strategic alliance with a wireless carrier to offer its wireless service integrated with our cable services and to develop technology that facilitates further integration. We have also purchased our own wireless spectrum, both directly and through a consortium. We have not yet built any networks using our spectrum, but we are exploring various strategies to utilize this spectrum to enhance our service offerings and offer new services.

#### Sales and Marketing

We offer our products and services through direct customer contact through our call centers, door-to-door selling, direct mail advertising, television advertising, local media advertising, telemarketing and retail outlets. In 2006, we began marketing our video, high-speed Internet and Comcast Digital Voice services in a package that we refer to as the "triple play."

#### Competition

We operate our businesses in an increasingly competitive environment. We compete with a number of different companies that offer a broad range of services through increasingly diverse means. In addition, we operate in a technologically complex environment where it is likely new technologies will further increase the number of competitors we face for our video, high-speed Internet and phone services, and our advertising business. We expect advances in communications technology to continue in the future and we are unable to predict what effects these developments will have on our businesses and operations.

#### Video Services

We compete with a number of different sources that provide news, information and entertainment programming to consumers, including:

- DBS providers that transmit satellite signals containing video programming, data and other information to receiving dishes located on the subscriber's premises
- incumbent local exchange carriers ("ILECs") that are building wireline fiber-optic networks, and in some cases using Internet protocol technology, to provide video services in substantial portions of their service areas and have begun to offer this service in several of our markets, in addition to marketing DBS service in certain areas

- other wireline communications providers that build and operate wireline communications systems in the same communities that we serve, including those operating as franchised cable operators or under an alternative regulatory scheme known as open video systems ("OVS")
- online services that offer Internet video streaming, downloading and distribution of movies, television shows and other video programming
- satellite master antenna television systems, known as SMATVs, that generally serve condominiums, apartment and office complexes, and residential developments
- local television broadcast stations that provide free over-the-air programming which can be received using an antenna and a television set
- digital subscription services transmitted over local television broadcast stations that can be received by a special set-top box
- wireless and other emerging mobile technologies that provide for the distribution and viewing of video programming
- video stores and home video products
- movie theaters
- newspapers, magazines and books
- live concerts and sporting events

In recent years, Congress has enacted legislation and the FCC has adopted regulatory policies intended to provide a favorable operating environment for existing competitors and for potential new competitors to our cable systems. The FCC adopted rules favoring new investment by ILECs in fiber-optic networks capable of distributing video programming and rules allocating and auctioning spectrum for new wireless services that may compete with our video service offerings. Furthermore, Congress and various state governments are considering measures that would reduce or eliminate local franchising requirements for new entrants into the multichannel video marketplace, including ILECs. Certain of such franchising entry measures have already been adopted by the FCC and nine states. We could be significantly disadvantaged if proposals to change franchising rules for our competitors, but not for cable operators, are approved and implemented (see "Legislation and Regulation" below).

DBS Systems. According to recent government and industry reports, conventional, medium- and high-power satellites currently provide video programming to over 29 million subscribers in the United States. DBS providers with high-power satellites typically offer more than 300 channels of programming, including programming services substantially similar to those our cable systems provide. Two companies, DirecTV and EchoStar, provide service to substantially all of these DBS subscribers.

High-power satellite service can be received throughout the continental United States through small rooftop or side-mounted outside antennas. Satellite systems use video compression technology to increase channel capacity and digital technology to improve the quality and quantity of the signals transmitted to their subscribers. Our digital cable service is competitive with the programming, channel capacity and quality of signals currently delivered to subscribers by DBS.

Federal legislation establishes, among other things, a compulsory copyright license that permits satellite systems to retransmit local broadcast television signals to subscribers who reside in the local television station's market. These companies are currently transmitting local broadcast signals in most markets that we serve. Additionally, federal law generally provides satellite systems with access to cable-affiliated video programming services delivered by satellite. DBS providers are competitive with cable operators like us because they offer programming that closely resembles what we offer. These DBS providers are also attempting to expand their service offerings to include, among other things, high-speed Internet service and have entered into marketing arrangements in which their service is promoted and sold by ILECs.

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*ILECs.* ILECs, in particular AT&T and Verizon, are building fiber-optic networks to provide video services in substantial portions of their service areas and have begun to offer this service in several of our service areas, in addition to entering into joint marketing arrangements with DBS providers in certain areas. The ILECs have taken various positions on the question of whether they need a local cable television franchise to provide video services. Some, like Verizon, have applied for local cable franchises while others, like AT&T, claim that they can provide their video services without a local cable franchise. Notwithstanding their positions, both AT&T and Verizon have filed for video service franchise certificates pursuant to recent state franchising legislation (see "Legislation and Regulation" below).

Other Wireline Providers. We operate our cable systems pursuant to nonexclusive franchises that are issued by a local community governing body, such as a city council or county board of supervisors or, in some cases, by a state regulatory agency. Federal law prohibits franchising authorities from unreasonably denying requests for additional franchises, and it permits franchising authorities to operate cable systems. In addition to ILECs, various companies, including those that traditionally have not provided cable services and have substantial financial resources (such as public utilities, including those that own some of the poles to which our cables are attached), have obtained cable franchises and provide competing communications services. These and other wireline communications systems offer video and other communications services in various areas where we hold franchises. We anticipate that facilities-based competitors will emerge in other franchise areas that we serve.

*SMATV*. Our cable systems also compete for subscribers with SMATV systems. SMATV system operators typically are not subject to regulation like local franchised cable system operators. SMATV systems offer subscribers both improved reception of local television stations and much of the programming offered by our cable systems. In addition, some SMATV operators are offering packages of phone, Internet access and video services to residential and commercial developments.

Broadcast Subscription Services. Local television broadcasters in a few markets sell digital subscription services. These services typically contain a limited number of cable programming services at a price of approximately \$20 per month.

#### **High-Speed Internet Services**

We compete with a number of other companies, many of which have substantial resources, including:

- ILECs and other telephone companies
- Internet service providers ("ISPs"), such as AOL, Earthlink and Microsoft
- wireless phone companies and other providers of wireless Internet services
- power companies

The deployment of digital subscriber line ("DSL") technology allows Internet access to be provided to subscribers over telephone lines at data transmission speeds substantially greater than those of conventional moderns. ILECs and other companies offer DSL service, and several of them have increased transmission speeds, lowered prices or created bundled service packages. In addition, some ILECs, such as Verizon and AT&T, are constructing fiber-optic networks that allow them to provide data transmission speeds that exceed those that can be provided with DSL technology and are now offering such higher speed service in numerous markets. The FCC has reduced the obligations of ILECs to offer their broadband facilities on a wholesale or retail basis to competitors, and it has freed their DSL services of common carrier regulation.

Various wireless phone companies are offering wireless high-speed Internet services. In addition, in a growing number of commercial areas, such as retail malls, restaurants and airports, wireless "WiFi" and "WiMax" Internet access capability is available. Numerous local governments are also considering or actively pursuing publicly subsidized WiFi and WiMax Internet access networks.

A number of cable operators have reached agreements to provide unaffiliated ISPs access to their cable systems in the absence of regulatory requirements. We reached access agreements with several national and regional third-party ISPs, although to date these ISPs have made limited use of their rights. We cannot provide any assurance, however, that regulatory authorities will not impose so-called "open access" or similar requirements on us as part of an industry-wide requirement. Additionally, Congress and the FCC are considering creating certain rights for Internet content providers and for users of high-speed Internet services by imposing "network neutrality" requirements upon service providers. These requirements could adversely affect our high-speed Internet services business (see "Legislation and Regulation" below).

We expect competition for high-speed Internet service subscribers to remain intense, with companies competing on service availability, price, product features, customer service, transmission speed and bundled services.

#### Phone Services

Our Comcast Digital Voice service and circuit-switched local phone service compete against ILECs, wireless phone service providers, competitive local exchange carriers ("CLECs") and other Voice-over-IP ("VoIP") service providers. The ILECs have substantial capital and other resources, longstanding customer relationships, and extensive existing facilities and network rights-of-way. A few CLECs also have existing local networks and significant financial resources.

We anticipate that by the end of 2007, approximately 85% of our homes passed will have access to Comcast Digital Voice. We expect some of our circuit-switched phone subscribers to migrate to our Comcast Digital Voice service over the next several years. The competitive nature of the phone business may negatively affect demand for and pricing of our phone services.

#### Advertising

We compete against a wide variety of media for sales of advertising, including local television broadcast stations, national television broadcast networks, national and regional cable television networks, local radio broadcast stations. local and regional newspapers, magazines, and Internet sites.

#### **Programming Segment**

The table below presents information as of December 31, 2006, relating to our consolidated national programming networks:

Programming Network	Approximate U.S. Subscribers (in millions)	Description
E!	81	Pop culture and entertainment-related programming
Style	37	Lifestyle-related programming
The Golf Channel	63	Golf and golf-related programming
VERSUS	61	Sports and leisure programming
G4	53	Gamer lifestyle programming
AZN Television	14	Asian American programming

Revenue for our programming networks is principally generated from the sale of advertising and from monthly per subscriber license fees paid by cable system operators, DBS companies and other multichannel video programming distributors ("MVPDs") that have typically entered into multiyear contracts to distribute our programming networks. To obtain long-term contracts with distributors, we may make cash payments, provide an initial period in which license fee payments are waived or do both. Our programming networks assist distributors with ongoing marketing and promotional activities to retain existing subscribers and acquire new subscribers. Although we believe prospects of continued carriage and marketing of our programming networks by larger distributors are generally good, the loss of one or more of such distributors could have a material effect on our programming networks.

#### Sources of Supply

Our programming networks often produce their own television programs and broadcasts of live events. This often requires us to acquire the rights to the content that is used in such productions (such as rights to screenplays or sporting events). In other cases, our programming networks license the cable telecast rights to television programs produced by third parties.

#### Competition

Our programming networks compete with other television programming services for distribution and programming. In addition, our programming networks compete for audience share with all other forms of programming provided to viewers, including broadcast networks, local broadcast stations, pay and other cable networks, home video, pay-per-view and video on demand services and online activities. Finally, our programming networks compete for advertising revenue with other national and local media, including other television networks, television stations, radio stations, newspapers, Internet sites and direct mail.

#### **Other Businesses**

In addition to our controlling interest in Comcast Spectacor, which owns the Philadelphia Flyers, the Philadelphia 76ers and two large multipurpose arenas, we also own noncontrolling interests in MGM, iN DEMAND, TV One, PBS KIDS Sprout, FEARnet, SportsChannel New England, New England Cable News, Pittsburgh Cable News Channel, Music Choice and Sterling Entertainment.

#### LEGISLATION AND REGULATION

Our video and phone services are subject to numerous requirements, prohibitions and limitations imposed by various federal and state laws and regulations, local ordinances and our franchise agreements. Our high-speed Internet service, while not currently subject to significant regulation, may be subject to such regulation in the future. Our Programming businesses are, with limited exceptions, not subject to direct governmental regulation. In addition, our video services are subject to compliance with the terms of the FCC's July 2006 order approving the Adelphia and Time Warner transactions (the "Adelphia Order").

The most significant federal law affecting our cable business is the Communications Act of 1934, as amended (the "Communications Act"). The Communications Act and the regulations and policies of the FCC affect significant aspects of our cable system video services, including cable system ownership, video subscriber rates, carriage of broadcast television stations, the way we sell our programming packages to subscribers, access to cable system channels by franchising authorities and other third parties, and use of utility poles and conduits. Additionally, the Communications Act and FCC regulations affect the offering of our high-speed Internet services and phone services.

#### Video Services

*Ownership Limits.* The FCC is considering imposing "horizontal ownership limits" that would limit the percentage of video subscribers that any single cable provider could serve nationwide. A federal appellate court struck down the previous 30% limit, and the FCC is now considering this issue anew. We serve approximately

27% of multichannel video subscribers. If the FCC were to reinstate ownership limits similar to those previously imposed, such limits would restrict our ability to take advantage of future growth opportunities. The FCC is also assessing whether it should reinstate "vertical ownership limits" on the number of affiliated programming networks a cable operator may carry on its cable systems. The previous limit of 40% of the first 75 channels was also invalidated by the federal appellate court. The percentage of affiliated programming networks we currently carry is well below the previous 40% limit, but it is uncertain how any new vertical limits might affect our Programming businesses. In addition, the FCC is considering revisions to its ownership attribution rules that would affect which cable subscribers are counted under any horizontal ownership limit and which programming interests are counted under any vertical ownership limit. It is uncertain when the FCC will rule on these issues.

Pricing and Packaging. The Communications Act and the FCC's regulations and policies limit the prices that cable systems may charge for limited basic service, equipment and installation as well as the manner in which cable operators may package premium or pay-per-view services with other tiers of service. These rules do not apply to cable systems that are determined by the FCC to be subject to "effective competition," but these determinations have thus far been made for only a small number of our cable systems. Failure to comply with these rate rules can result in rate reductions and refunds for subscribers. From time to time, Congress and the FCC consider imposing new pricing or packaging regulations on the cable industry, including proposals requiring cable operators to offer programming services on an a la carte or themed-tier basis instead of, or in addition to, our current packaged offerings. It is unclear whether or when Congress, the FCC or any other regulatory agency may adopt any new requirements with respect to the pricing or packaging of video services and how such requirements, if adopted, would affect our Cable and Programming businesses. Additionally, Communications Act uniform pricing requirements may affect our ability to respond to increased competition through offers, promotions or other discounts that aim to retain existing subscribers or regain those we have lost.

Must-Carry/Retransmission Consent. Cable operators are currently required to carry, without compensation, the programming transmitted by most local commercial and non-commercial television stations ("must-carry"). Alternatively, local television stations may insist that a cable operator negotiate for "retransmission consent," which may enable popular stations to demand cash payments or other significant concessions (such as the carriage of, and payment for, other programming networks affiliated with the broadcaster) as a condition of transmitting the TV broadcast signals that cable subscribers expect to receive. As part of the transition from analog to digital broadcast transmission (now scheduled for completion in February 2009), Congress and the FCC gave each local broadcast station a digital channel, capable of carrying multiple programming streams, in addition to its current analog channel. The FCC has to date rejected proposals to require cable operators to: (i) simultaneously carry both the analog and digital signals of each broadcaster during the transition (cable operators currently are obligated to carry only the broadcaster's analog signal during the transition); and (ii) carry the multiple program streams transmitted within a broadcaster's digital signal (cable operators currently are obligated to carry only the primary digital video stream of the broadcaster after the broadcaster surrenders its analog channel). However, such proposals may continue to be presented by the FCC. In general, if such expanded carriage requirements were adopted, we would have less freedom and capacity to provide the services that we believe will be of greatest interest to our subscribers.

Program Access/Licensee Agreements. The Communications Act and the FCC's "program access" rules generally prevent satellite video programmers affiliated with cable operators from favoring cable operators over competing MVPDs, such as DBS, and limit the ability of such programmers to offer exclusive programming arrangements to cable operators. The FCC has extended the exclusivity restrictions through October 2007 and is expected to launch a proceeding to consider a further extension of the exclusivity restrictions in the first half of 2007. There is also increased attention at the FCC and in Congress focused on exclusive arrangements involving sports programming. In addition, the Communications Act and the FCC's "program carriage" rules prohibit cable operators or other MVPDs from requiring a financial interest in any video programming network as a condition of carriage or from unreasonably restraining the ability of an unaffiliated programming network to compete fairly by discriminating against the network on the basis of its nonaffiliation in the selection, terms or conditions for carriage. The FCC is planning to launch a rulemaking aimed at streamlining the complaint processes for program

access and program carriage complaints. Any decision by the FCC or Congress to apply new program access or program carriage regulations to cable operators could have an adverse impact on our businesses. Additionally, the FCC's Adelphia Order (discussed below) expands the application of the program access rules to Comcastaffiliated regional sports networks ("RSNs") and establishes an arbitration option for disputes over carriage of unaffiliated RSNs.

*Cable Equipment Issues.* The FCC has adopted regulations aimed at promoting the retail sale of set-top boxes and other equipment that can be used to receive digital video services. Currently, most cable subscribers access these services using a leased set-top box that integrates cable access security with other operating functions. Subscribers may also obtain digital video services through a separate piece of equipment, known as a CableCARD, that connects to digital cable devices purchased at retail. Effective July 2007, cable operators must cease placing into service new set-top boxes with integrated security. At that time, newly deployed leased set-top boxes must use a separate piece of equipment (typically a CableCARD) to provide access to digital video services. A federal court upheld the ban on integrated set-top box security in August 2006, leaving any subsequent relief to the FCC. We and other companies subject to the ban are currently seeking FCC waivers to exempt some limited function set-top boxes from the ban and/or to extend the deadline to accommodate a newer request for limited-function set-top boxes was denied by the FCC's Media Bureau in January 2007. We have requested a review of that decision by the full FCC, but there is no assurance that our request will be granted. If the FCC does not extend the deadline and does not grant our waiver request, we will be forced to incur added costs in purchasing CableCARD-enabled set-top boxes and the associated CableCARDs.

In addition, the FCC has adopted rules to implement an agreement between the cable and consumer electronics industries aimed at promoting the manufacture of "plug-and-play" TV sets that can connect directly to the cable network and receive one-way analog and digital video services without the need for a set-top box. We believe that we are substantially in compliance with these one-way plug-and-play requirements.

Franchise Matters. Cable operators generally operate their cable systems pursuant to non-exclusive franchises granted by local or state franchising authorities. While the terms and conditions of franchises vary materially from jurisdiction to jurisdiction, franchises typically last for a fixed term, obligate the franchisee to pay franchise fees and meet service quality, customer service and other requirements, and are terminable if the franchisee fails to comply with material provisions. The Communications Act contains provisions governing the franchiseing process, including, among other things, renewal procedures designed to protect incumbent franchisees against arbitrary denials of renewal. We believe that our franchise renewal prospects generally are favorable.

There has been considerable activity at the federal and state level regarding franchise requirements imposed on new entrants. In December 2006, the FCC adopted new rules designed to ease the franchising process and reduce franchising burdens for new entrants. In announcing this decision, the FCC said that it would, among other things, limit the range of financial, construction and other commitments that franchising authorities can request of new entrants, require franchising authorities to act on franchise applications by certain new entrants (such as ILECs) within 90 days, and preempt certain local "level playing field" franchising requirements. However, the FCC has not yet released the text of its order, so the terms are not yet fully known. We expect the order will be subject to a court challenge once it is released. In addition, Congress and various state governments are considering measures that would lessen or eliminate franchising requirements for new entrants, including ILECs. Several states have already enacted legislation to provide statewide franchising or to simplify local franchising requirements for new entrants, thus relieving new entrants of many of the local franchising burdens faced by incumbent operators. Certain of these state statutes allow the incumbent cable operator to "opt into" the new state franchise where a competing state franchise has been issued for the incumbent's franchise area. However, even in those states where the incumbent cable operator is allowed to opt into a state franchise, the incumbent operator typically retains certain franchise obligations that are more burdensome than the new entrant's state franchise. We have significant operations in several of the states that have passed state franchising legislation and we anticipate that additional states will pass similar franchising legislation.

The FCC has also announced that it will initiate a follow-on rulemaking to consider whether to make similar changes for existing cable operators. We could be materially disadvantaged if rules that provide less burdensome franchising requirements for new entrants, but not existing operators, are implemented. Furthermore, Congress may also consider proposals to eliminate or streamline local franchising requirements for ILECs and other new entrants. If enacted, this legislation could materially disadvantage existing operators.

Pole Attachments. The Communications Act requires phone companies and other utilities (other than those owned by municipalities or cooperatives) to provide cable systems with nondiscriminatory access to any pole or right-of-way controlled by the utility. The rates that utilities may charge for such access are regulated by the FCC or, alternatively, by states that certify to the FCC that they regulate such rates. Several states in which we have cable systems have certified that they regulate pole rates. There is always the possibility that the FCC or a state could permit the increase of pole attachment rates paid by cable operators. Additionally, higher pole attachment rates apply to pole attachments that are subject to the FCC's telecommunications services pole rates. The applicability of and method for calculating those rates for cable systems over which various phone services are transmitted remain unclear, and there is a risk that we will face significantly higher pole attachment costs as our phone business expands.

*Privacy Regulation.* The Communications Act generally restricts the nonconsensual collection and disclosure to third parties of subscribers' personal information by cable operators and phone providers. Additional requirements may be imposed if and to the extent state or local authorities establish their own privacy standards. In addition, the FCC, the Federal Trade Commission and many states have adopted rules that limit the telemarketing practices of cable operators and other commercial entities.

Copyright Regulation. In exchange for filing certain reports and contributing a percentage of revenue to a federal copyright royalty pool, cable operators can obtain blanket permission to retransmit copyrighted material contained in broadcast signals. The possible modification or elimination of this copyright license is the subject of ongoing legislative and administrative review. The elimination or substantial modification of the cable compulsory license could adversely affect our ability to obtain certain programming and substantially increase our programming expenses. Further, the Copyright Office has not yet made any determinations as to how the compulsory license will apply to digital broadcast signals and services. In addition, we pay standard industry licensing fees to use music in the programs we create, including our Cable businesses' local advertising and local origination programming, and our Programming businesses' original programs. These licensing fees have been the source of litigation with music performance rights organizations in the past, and we cannot predict with certainty whether license fee disputes may arise in the future.

PEG/Leased Access. The Communications Act permits franchising authorities to require cable operators to set aside the use of channels for public, educational and governmental ("PEG") access programming. Many of our cable systems provide substantial channel capacity and financial support for PEG programming. The Communications Act also requires a cable system with 36 or more channels to make available a portion of its channel capacity for commercial leased access by third parties to provide programming that may compete with services offered directly by the cable operator. To date, we have generally not been required to devote significant channel capacity to leased access. However, the FCC's Adelphia Order will now permit programmers seeking to obtain commercial leased access carriage on our systems to submit rate and terms disputes to commercial arbitration. Further, the FCC has stated that a new rulemaking will be commenced in an effort to facilitate the use of commercial leased access could have an adverse impact on our business.

#### **High-Speed Internet Services**

We provide high-speed Internet service by means of our existing cable systems. In 2002, the FCC ruled that this was an "interstate information service" not subject to federal telecommunications regulation or state or local utility regulation. That ruling was affirmed by the Supreme Court in June 2005. However, our high-speed

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Internet service is nonetheless subject to certain regulatory obligations. In August 2005, the FCC adopted rules requiring providers of high-speed Internet access service (including cable operators) to comply with the Communications Assistance for Law Enforcement Act ("CALEA"). The FCC required that by May 2007 high-speed Internet service providers must implement certain network capabilities to assist law enforcement in conducting surveillance of persons suspected of criminal activity. We expect that our high-speed Internet services will comply with these new requirements. In addition, Congress is considering proposals that would give the Attorney General authority to require that Internet service providers retain for substantial periods information regarding their customers. We do not know the scope or length of the data retention requirements that may be adopted or how they will affect our operating costs or potential liabilities.

Congress and the FCC are considering defining certain rights for users of high-speed Internet services, and to regulate or restrict certain types of commercial agreements between service providers and providers of Internet content. These proposals are generally referred to as "network neutrality." In August 2005, the FCC issued a non-binding policy statement stating four principles to guide its policymaking regarding high-speed Internet and other related services. These principles state that consumers are entitled to: (i) access the lawful Internet content of their choice; (ii) run applications and services of their choice, subject to the needs of law enforcement; (iii) connect their choice of legal devices that do not harm the network; and (iv) enjoy competition among network providers, application and service providers, and content providers. Parties are pressing the FCC to adopt these principles as formal rules. Congress is considering legislation that would both codify these principles and impose additional obligations on high-speed Internet providers and some states are considering similar proposals. Any new federal or state rules or statutes could limit our ability to manage our cable systems (including use for other services), to obtain value for use of our cable systems, or to respond to competitive conditions. We cannot predict whether such rules or statutes will be adopted.

A federal program generally applicable to telecommunications services, known as the "Universal Service" program, requires telecommunications service providers to collect and pay a fee based on their revenues (in recent years, roughly 10% of revenues) into a fund used to subsidize the provision of telecommunications services in high-cost areas and Internet access and telecommunications services to schools and libraries and certain health care providers. The FCC and Congress are considering revisions to the Universal Service program that could result in high-speed Internet access services being subject to Universal Service fees. We cannot predict whether or how the Universal Service funding system might be extended to cover high-speed Internet access services or, if that occurs, how it will affect us. Furthermore, Congress, the FCC and certain local governments are also considering proposals to impose customer service, quality of service and privacy standards on high-speed Internet service providers, and it is uncertain whether any of these proposals will be adopted.

Congress and federal regulators have adopted a wide range of measures affecting Internet use, including, for example, consumer privacy, copyright protection, defamation liability, taxation, obscenity and unsolicited commercial e-mail. Further, state and local governments have also adopted Internet-related regulations. Governmental bodies at all levels are also considering additional regulations in these and other areas, such as pricing, service and product quality, and intellectual property ownership. The adoption of new laws or the application of existing laws, including tax laws, to the Internet could have a material effect on our high-speed Internet service.

#### Phone Services

We offer phone service using both VoIP and circuit-switched technology. The FCC has adopted a number of orders addressing specific regulatory issues relating to VoIP. In November 2004, the FCC ruled that a particular form of VoIP service is not subject to state or local utility regulation. State regulators and others have challenged that ruling, including specifically its application to cable-delivered VoIP services such as Comcast Digital Voice, and at least one state public utility commission has claimed authority to regulate that service under state law. In May 2005, the FCC adopted rules requiring VoIP service providers having certain characteristics (including our Comcast Digital Voice service) to furnish Enhanced 911 ("E911") capabilities as a standard feature of their

services, and to advise their customers of the circumstances under which E911 service may not be available. We believe Comcast Digital Voice service complies with these requirements. Also, in an order issued in September 2005, the FCC imposed CALEA obligations on VoIP service providers. We expect that Comcast Digital Voice will comply with these CALEA rules when they go into effect in May 2007. In June 2006, the FCC ruled that certain VoIP services (including our Comcast Digital Voice service) would be subject to Universal Service payment obligations with respect to the interstate portions of the service. Congress is also considering legislation that, if enacted, would affect the regulatory obligations of VoIP service providers. We cannot predict whether Congress will approve such legislation.

The FCC has initiated other rulemakings to consider whether to impose further regulations on VoIP. For example, in one rulemaking, it is considering whether and how certain types of common carrier regulations should apply to VoIP services, including intercarrier compensation, and the obligation to provide persons with disabilities with access to these services.

The FCC and Congress are also considering how VoIP service should interconnect with ILECs' phone networks. Since the FCC has never determined whether VoIP service is a "telecommunications service," the precise scope of ILEC interconnection rules applicable to VoIP providers is not entirely clear. As a result, some ILECs may resist interconnecting directly with VoIP providers. In light of these concerns, VoIP service providers typically either secure CLEC authorization, or obtain interconnection to ILEC networks by contracting with an existing CLEC, whose right to deal with the ILECs is clear. We have arranged for such interconnection rights through our own and through third-party CLECs. It is uncertain whether and when the FCC or Congress will adopt further rules in this area and how such rules would affect our Comcast Digital Voice service.

Our circuit-switched phone services are subject to federal, state and local utility regulation, although the level of regulation imposed on us is generally less than that applied to the incumbent phone companies. The scope of ILEC obligations is, however, being re-evaluated at the FCC and in Congress. The FCC has already adopted measures relieving the ILECs of certain obligations to make elements of their networks available to competitors at cost-based rates. The FCC has also initiated rulemakings on intercarrier compensation, Universal Service and other matters that, in the aggregate, could significantly change the rules that apply to phone competition, including the relationship between wireless and wireline providers, long-distance and local providers, and incumbents and new entrants. It is unclear how these proceedings will affect our phone services.

#### Other Areas

The FCC actively regulates other aspects of our Cable business and limited aspects of our Programming business, including the mandatory blackout of syndicated, network and sports programming; customer service standards; political advertising; indecent or obscene programming: Emergency Alert System requirements for analog and digital services; closed captioning requirements for the hearing impaired; competitors' access to cable wiring inside apartment buildings and other MDUs; commercial restrictions on children's programming; origination cablecasting (i.e., programming locally originated by and under the control of the cable operator); sponsorship identification; equal employment opportunity; lottery programming; program carriage; recordkeeping and public file access requirements; and technical standards relating to operation of the cable network. We are unable to predict how these regulations might be changed in the future and how any such changes might affect our Cable and Programming businesses.

#### State and Local Taxes

Some states and localities are considering imposing new taxes, including sales and property taxes, on the services we offer. We cannot predict at this time whether such taxes will be enacted or what impact they might have on our business.

#### FCC Adelphia Order

The Adelphia Order imposed a number of conditions on us and our affiliated programming networks:

Program Access Conditions. Under the Adelphia Order, all RSNs that we manage, control or have an attributable ownership interest in are deemed covered by the program access rules, regardless of the means of delivery. Previously, cable-affiliated RSNs delivered terrestrially were exempt from the rules. However, Comcast SportsNet Philadelphia is not subject to this condition for MVPDs that currently do not carry the network. Further, under the Adelphia Order, an MVPD may, as an alternative to filing a program access complaint, seek to resolve disputes regarding carriage of our RSNs through commercial arbitration. Such arbitration is subject to FCC review. However, such arbitration right is not applicable to Comcast SportsNet Philadelphia for MVPDs that currently do not carry the network. This arbitration expires in July 2012.

*Carriage of Unaffiliated RSNs.* The Adelphia Order also imposes conditions regarding the carriage of unaffiliated RSNs on our cable systems. Specifically, if an RSN that is unaffiliated with any MVPD has been denied carriage on one of our cable systems, the RSN may submit its carriage claim to a commercial arbitration process that may result in mandatory carriage of the RSN. The arbitrator's decision is subject to FCC review. This arbitration condition also expires in July 2012.

Leased Access Conditions. The Adelphia Order permits programmers that cannot reach a leased access agreement with us to submit the dispute to commercial arbitration. This leased access condition expires in July 2012.

#### EMPLOYEES

As of December 31, 2006, we employed approximately 90,000 employees, including part-time employees. Of these employees, approximately 75,000 were associated with our cable businesses with the remainder associated with our other businesses. Approximately 5,000 of our employees are covered by collective bargaining agreements or have organized but are not covered by collective bargaining agreements. We believe we have good relationships with our employees.

#### CAUTION CONCERNING FORWARD-LOOKING STATEMENTS

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. In this Annual Report on Form 10-K, we state our beliefs of future events and of our future financial performance. In some cases, you can identify these so-called "forward-looking statements" by words such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," or "continue," or the negative of these words, and other comparable words. You should be aware that those statements are only our predictions. In evaluating those statements, you should specifically consider various factors, including the risks and uncertainties listed in "Risk Factors" under Item 1A and in other reports we file with the SEC. Actual events or our actual results may differ materially from any of our forward-looking statements.

Additionally, we operate in a highly competitive, consumer-driven and rapidly changing environment. The environment is affected by government regulation, economic, strategic, political and social conditions, consumer response to new and existing products and services, technological developments and, particularly in view of new technologies, the ability to develop and protect intellectual property rights. Our actual results could differ materially from management's expectations because of changes in such factors. Other factors and risks could adversely affect our operations, business or financial results of our businesses in the future and could also cause actual results to differ materially from those contained in the forward-looking statements.

#### **ITEM 1A:RISK FACTORS**

## All of the services offered by our cable systems face a wide range of competition that could adversely affect our future results of operations.

Our cable systems compete with a number of different sources that provide news, information and entertainment programming to consumers. We compete directly with other programming distributors, including DBS companies, phone companies, companies that build competing cable systems in the same communities we serve, and companies that offer programming and other communications services to our subscribers and potential subscribers, including high-speed Internet and VoIP-enabled phone. This competition may adversely affect our business and operations materially in the future.

#### Programming expenses are increasing, which could adversely affect our future results of operations.

We expect our programming expenses to continue to be our largest single expense item in the foreseeable future. In recent years, the cable and satellite video industries have experienced a rapid increase in the cost of programming. If we are unable to raise our subscribers' rates or offset such programming cost increases through the sale of additional services, the increasing cost of programming could have an adverse impact on our operating results. In addition, as we add programming to our video services, we may face increased programming expenses that, in conjunction with the additional pricing constraints, may reduce operating margins.

We also expect to be subject to increasing demands by broadcasters in exchange for their required consent for the retransmission of broadcast programming to our subscribers. We cannot predict the impact of these demands or the effect on our business and operations should we fail to obtain the required consents.

## We are subject to regulation by federal, state and local governments, which may impose costs and restrictions.

Federal, state and local governments extensively regulate the cable industry and the circuit-switched phone services industry and may begin regulating the Internet services industry. We expect that legislative enactments, court actions and regulatory proceedings will continue to clarify and in some cases change the rights and obligations of cable operators and other entities under the Communications Act and other laws, possibly in ways that we have not foreseen. Congress considers new legislative requirements potentially affecting our businesses virtually every year, and significant legislation to update the Communications Act is currently pending in Congress. The results of these legislative, judicial and administrative actions may materially affect our business operations. Local authorities grant us franchises that permit us to operate our cable systems. We have to renew or renegotiate these franchises from time to time. Local franchising authorities often demand concessions or other commitments as a condition to renewal or transfer, and such concessions or other commitments could be costly to us in the future. In addition, we could be materially disadvantaged if we remain subject to legal constraints that do not apply equally to our competitors, such as if local phone companies that provide video programming services are not subject to the local franchising requirements and other requirements that apply to us. For example, the FCC has adopted rules and several states have enacted legislation to ease the franchising process and reduce franchising burdens for new entrants. Congress and the FCC are also considering various forms of "network neutrality" regulation. See "Legislation and Regulation-Video Services-Franchise Matters and High-Speed Internet Services" in Item 1 to this Annual Report on Form 10-K.

## We may face increased competition because of technological advances and new regulatory requirements, which could adversely affect our future results of operations.

ILECs are building wireline fiber-optic networks and in some case using Internet protocol technology to provide video services in substantial portions of their service areas (and have begun to offer this service in several states), in addition to marketing DBS service in certain areas. ILECs and other companies also offer DSL service, which provides Internet access to subscribers at data transmission speeds substantially greater than that of conventional analog modems. We expect other advances in communications technology, as well as changes in the inarketplace, to occur in the future. New technologies and services may develop that compete with services that cable systems offer, and such services may not be regulated in the same manner or to the same extent as our services. The success of these ongoing and future developments could have an adverse effect on our business operations. Moreover, in recent years, Congress has enacted legislation and the FCC has adopted regulatory policies intended to provide a favorable operating environment for existing competitors and for potential new competitors to our cable systems.

#### We face risks arising from the outcome of various litigation matters.

We are involved in various litigation matters, including those arising in the ordinary course of business and those described under the caption "Legal Proceedings " in Item 3 of this Annual Report on Form 10-K. While we do not believe that any of these litigation matters alone or in the aggregate will have a material effect on our consolidated financial position, an adverse outcome in one or more of these matters could be material to our consolidated results of operations for any one period. Further, no assurance can be given that any adverse outcome would not be material to our consolidated financial position.

### Acquisitions and other strategic transactions present many risks, and we may not realize the financial and strategic goals that were contemplated at the time of any transaction.

From time to time we have made acquisitions and have entered into other strategic transactions. In connection with acquisitions and other strategic transactions, we may incur unanticipated expenses; fail to realize anticipated benefits; have difficulty incorporating the acquired businesses; disrupt relationships with current and new employees, subscribers and vendors; incur significant indebtedness; or have to delay or not proceed with announced transactions. These factors could have a material effect on our business, results of operations, financial condition or cash flows.

# Our Class B common stock has substantial voting rights and separate approval rights over a number of potentially material transactions and, through his beneficial ownership of the Class B common stock, our Chairman and CEO has considerable influence over our operations.

Our Class B common stock has a nondilutable 33 1/3 % of the combined voting power of our common stock. This nondilutable voting power is subject to proportional decrease to the extent the number of shares of Class B common stock is reduced below 9,444,375, which was the number of shares of Class B common stock outstanding on the date of our 2002 acquisition of AT&T Corp.'s cable business, subject to adjustment in specified situations. Stock dividends payable on the Class B common stock in the form of Class B or Class A Special common stock do not decrease the nondilutable voting power of the Class B common stock. The Class B common stock also has separate approval rights over the following potentially material transactions: mergers or consolidations involving Comcast Corporation, transactions (such as a sale of all or substantially all of our assets) or issuances of securities that require shareholder approval, transactions that result in any person or group owning shares representing more than 10% of the combined voting power of the resulting or surviving corporation, issuances of Class B common stock or securities exercisable or convertible into Class B common stock and amendments to our articles of incorporation or by-laws that would limit the rights of holders of our Class B common stock. Brian L. Roberts beneficially owns of all of the outstanding shares of our Class B common stock and accordingly has considerable influence over our operations and has the ability to transfer potential effective control by selling the Class B common stock. In addition, under our articles of incorporation, Mr. Roberts is entitled to remain as our Chairman, Chief Executive Officer and President until May 26, 2010, unless he is removed by the affirmative vote of at least 75% of the entire Board of Directors or he is no longer willing or able to serve.

#### **ITEM 1B: UNRESOLVED STAFF COMMENTS**

None.

#### **ITEM 2: PROPERTIES**

We believe that substantially all of our physical assets are in good operating condition.

#### Cable

Our principal physical assets consist of operating plant and equipment, including signal receiving, encoding and decoding devices, headends and distribution systems and equipment at or near subscribers' homes for each of our cable systems. The signal receiving apparatus typically includes a tower, antenna, ancillary electronic equipment and earth stations for reception of satellite signals. Headends, consisting of electronic equipment necessary for the reception, amplification and modulation of signals, are located near the receiving devices. Our distribution system consists primarily of coaxial and fiber optic cables, lasers, routers, switches and related electronic equipment. Our cable plant and related equipment generally are attached to utility poles under pole rental agreements with local public utilities, although in some areas the distribution cable is buried in underground ducts or trenches. Customer premise equipment consists principally of set-top boxes and cable modems. The physical components of cable systems require periodic maintenance.

Our signal reception sites, primarily antenna towers and headends, and microwave facilities, are located on owned and leased parcels of land, and we own or lease space on the towers on which certain of our equipment is located. We own most of our service vehicles.

Our high-speed Internet backbone consists of fiber owned by us and related equipment. We also operate regional data centers with equipment that is used to provide services (such as e-mail, news and web services) to our high-speed Internet subscribers and Comcast Digital Voice subscribers. In addition, we maintain a network operations center with equipment necessary to monitor and manage the status of our high-speed Internet network.

Throughout the country we own buildings that provide call centers, service centers, warehouses and administrative space. We also own a building that houses our media center. The media center contains equipment that we own or lease, including equipment related to network origination, global transmission via satellite and terrestrial fiber optics, a broadcast studio, mobile and post-production services, interactive television services and streaming distribution services.

#### Programming

Television studios and business offices are the principal physical assets of our Programming operations. We own or lease the television studios and business offices of our Programming operations.

#### Other

Two large, multi-purpose arenas that we own are the principal physical assets of our other operations.

As of December 31, 2006, we leased locations for our corporate offices in Philadelphia, Pennsylvania as well as numerous business offices, warehouses and properties housing divisional information technology operations throughout the country. We expect to move into a new leased headquarters building in Philadelphia, Pennsylvania beginning in late 2007.

#### **ITEM 3: LEGAL PROCEEDINGS**

#### At Home Cases

Litigation has been filed against us as a result of our alleged conduct with respect to our investment in and distribution relationship with At Home Corporation. At Home was a provider of high-speed Internet services that filed for bankruptcy protection in September 2001. Filed actions are: (i) class action lawsuits against us, AT&T (the former controlling shareholder of At Home and also a former distributor of the At Home service) and others in the United States District Court for the Southern District of New York, alleging securities law violations and common law fraud in connection with disclosures made by At Home in 2001; and (ii) a lawsuit brought in the United States District Court for the District of Delaware in the name of At Home by certain At Home

bondholders against us, Brian L. Roberts (our Chairman and Chief Executive Officer and a director). Cox (Cox is also an investor in At Home and a former distributor of the At Home service) and others, alleging breaches of fiduciary duty relating to March 2000 agreements (which, among other things, revised the distributor relationships), and seeking recovery of alleged short-swing profits pursuant to Section 16(b) of the Exchange Act (purported to have arisen in connection with certain transactions relating to At Home stock effected pursuant to the March 2000 agreements).

In the Southern District of New York actions (item (i) above), the court dismissed all claims. The plaintiffs' appealed this decision, and the Court of Appeals for the Second Circuit denied the plaintiffs' appeal. The plaintiffs petitioned the Court of Appeals for rehearing. The Delaware case (item (ii) above) was transferred to the United States District Court for the Southern District of New York. The court dismissed the Section 16(b) claims, and the breach of fiduciary duty claim for lack of federal jurisdiction. The Court of Appeals for the Second Circuit denied the plaintiffs' appeal from the decision dismissing the Section 16(b) claims, and the U.S. Supreme Court denied the plaintiffs' petition for a further appeal. The plaintiffs recommenced the breach of fiduciary duty claim in Delaware Chancery Court. The Court has set a trial date in October 2007.

Under the terms of our 2002 acquisition of AT&T Corp.'s cable business, we are contractually liable for 50% of any liabilities of AT&T in the actions described in items (i) and (ii) above (in which we are also a defendant).

We deny any wrongdoing in connection with the claims that have been made directly against us, our subsidiaries and Brian L. Roberts, and are defending all of these claims vigorously. The final disposition of these claims is not expected to have a material effect on our consolidated financial position, but could possibly be material adverse to our consolidated results of operations of any one period. Further, no assurance can be given that any adverse outcome would not be material to our consolidated financial position.

#### AT&T-TCI Cases

In June 1998, class action lawsuits were filed by then-shareholders of Tele-Communications, Inc. ("TCI") Series A TCI Group Common Stock ("Common A") against AT&T and the directors of TCI relating to the acquisition of TCI by AT&T, alleging that former members of the TCI board of directors breached their fiduciary duties to Common A shareholders by agreeing to transaction terms whereby holders of the Series B TCI Group Common Stock received a 10% premium over what Common A shareholders received.

In connection with the TCI acquisition (completed in early 1999), AT&T agreed under certain circumstances to indemnify TCI's former directors for certain liabilities, potentially including those incurred in connection with this action. Under the terms of our acquisition of AT&T Corp.'s cable business. (i) we agreed to indemnify AT&T for certain liabilities, potentially including those incurred by AT&T in connection with this action, and (ii) we assumed certain obligations of TCI to indemnify its former directors, potentially including those incurred in connection with this action.

In October 2006 these lawsuits were settled. We agreed to contribute approximately \$44 million to the settlement. This amount was paid in November 2006 and did not have a material impact on our results of operations for the year ended December 31, 2006. The settlement was approved in February 2007.

#### Patent Litigation

We are a defendant in several unrelated lawsuits claiming infringement of various patents relating to various aspects of our businesses. In certain of these cases other industry participants are also defendants, and also in certain of these cases we expect that any potential liability would be in part or in whole the responsibility of our equipment vendors pursuant to applicable contractual indemnification provisions. To the extent that the allegations in these lawsuits can be analyzed by us at this stage of their proceedings, we believe the claims are without merit and intend to defend the actions vigorously. The final disposition of these claims is not expected to

have a material adverse effect on our consolidated financial position, but could possibly be material to our consolidated results of operations of any one period. Further, no assurance can be given that any adverse outcome would not be material to our consolidated financial position.

#### Antitrust Cases

We are defendants in two purported class actions originally filed in the United States District Courts for the District of Massachusetts and the Eastern District of Pennsylvania, respectively. The potential class in the Massachusetts case is our subscriber base in the "Boston Cluster" area, and the potential class in the Pennsylvania case is our subscriber base in the "Philadelphia and Chicago clusters," as those terms are defined in the complaints. In each case, the plaintiffs allege that certain subscriber exchange transactions with other cable providers resulted in unlawful "horizontal market restraints" in those areas and seek damages pursuant to antitrust statutes, including treble damages.

As a result of recent events in both cases relating to the procedural issue of whether the plaintiffs' claims could proceed in court or, alternatively, whether the plaintiffs should be compelled to arbitrate their claims pursuant to arbitration clauses in their subscriber agreements, it has become more likely that these cases will proceed in court. Our motion to dismiss the Pennsylvania case on the pleadings was denied, and the plaintiffs have moved to certify a class action. We are opposing the plaintiffs' motion and are proceeding with class discovery. We have moved to dismiss the Massachusetts case. The Massachusetts case was recently transferred to the Eastern District of Pennsylvania and plaintiffs are seeking to consolidate it with the Pennsylvania case.

We believe the claims in these actions are without merit and are defending the actions vigorously. The final disposition of these claims is not expected to have a material adverse effect on our consolidated financial position, but could possibly be material to our consolidated results of operations of any one period. Further, no assurance can be given that any adverse outcome would not be material to our consolidated financial position.

#### Other

We are subject to other legal proceedings and claims that arise in the ordinary course of our business. The amount of ultimate liability with respect to such actions is not expected to materially affect our financial position, results of operations or liquidity.

#### ITEM 4: SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

Not applicable.

#### **ITEM 4A: EXECUTIVE OFFICERS OF THE REGISTRANT**

Except for our Chairman and CEO (who continues in these offices until his death, resignation or removal), the term of office of each of our officers continues until his or her successor is selected and qualified, or until his or her earlier death, resignation or removal. The following table sets forth information concerning our executive officers, including their ages, positions and tenure as of December 31, 2006:

Name	Age	Officer Since	Position with Comcast
	47	1986	Chairman and CEO; Director
Ralph J. Roberts	86	1 <b>969</b>	Chairman of the Executive and Finance Committee of the Board of Directors; Director
John R. Alchin	58	1 <b>990</b>	Executive Vice President; Co-Chief Financial Officer; Treasurer
Stephen B. Burke	48	1 <b>99</b> 8	Executive Vice President; Chief Operating Officer; President, Comcast Cable
David L. Cohen	51	2002	Executive Vice President
Lawrence S. Smith	59	1988	Executive Vice President; Co-Chief Financial Officer
Arthur R. Block	51	1 <b>993</b>	Senior Vice President; General Counsel; Secretary
Lawrence J. Salva	50	2000	Senior Vice President; Chief Accounting Officer; Controller

Brian L. Roberts has served as a director and as our President and Chief Executive Officer since November 2002 and our Chairman of the Board since May 2004. Prior to November 2002. Mr. Roberts served as a director and President of Comcast Holdings Corporation (our immediate predecessor and now a subsidiary) for more than five years. As of December 31, 2006, Mr. Roberts had sole voting power over approximately 33  $\frac{1}{3}$  % of the combined voting power of our two classes of voting common stock. He is a son of Mr. Ralph J. Roberts. Mr. Roberts is also a director of Comcast Holdings and The Bank of New York Company, Inc.

Ralph J. Roberts has served as a director and as our Chairman of the Executive and Finance Committee of the Board of Directors since November 2002. Prior to November 2002, Mr. Roberts served as a director and Chairman of the Board of Directors of Comcast Holdings for more than five years. He is the father of Mr. Brian L. Roberts.

John R. Alchin has served as an Executive Vice President and as our Co-Chief Financial Officer and Treasurer since November 2002. Prior to November 2002. Mr. Alchin served as an Executive Vice President and Treasurer of Comcast Holdings since January 2000. Mr. Alchin is also a director of Polo Ralph Lauren Corp and BNY Capital Markets, Inc. Mr. Alchin has informed the Company that he will step down from his executive officer positions at the end of 2007.

Stephen B. Burke has served as our Chief Operating Officer since July 2004, and as our Executive Vice President and President of Comcast Cable and Comcast Cable Communications Holdings since November 2002. Prior to November 2002, Mr. Burke served as an Executive Vice President of Comcast Holdings and as President of Comcast Cable since January 2000. Mr. Burke is also a director of JPMorgan Chase & Company.

David L. Cohen has served as an Executive Vice President since November 2002. Mr. Cohen joined Comcast Holdings in July 2002 as an Executive Vice President. Prior to that time, he was a partner in, and Chairman of, the law firm of Ballard Spahr Andrews & Ingersoll, LLP for more than five years. Mr. Cohen is also a director of Comcast Holdings.

Lawrence S. Smith has served as an Executive Vice President and as our Co-Chief Financial Officer since November 2002. Prior to November 2002, Mr. Smith served as an Executive Vice President of Comcast Holdings for more than five years. Mr. Smith is also a director of Comcast Holdings and Air Products and Chemicals, Inc. Mr. Smith has informed the Company that he will step down from his executive officer positions at the end of the first quarter of 2007.

Arthur R. Block has served as our Senior Vice President, General Counsel and Secretary since November 2002. Prior to November 2002, Mr. Block served as General Counsel of Comcast Holdings since June 2000 and as Senior Vice President of Comcast Holdings since January 2000. Mr. Block is also a director of Comcast Holdings.

Lawrence J. Salva has served as our Senior Vice President and Controller since November 2002 and as Chief Accounting Officer since May 2004. Mr. Salva joined Comcast Holdings in January 2000 as Senior Vice President and Chief Accounting Officer.

#### PART II

#### ITEM 5: MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol CMCSA and our Class A Special common stock is listed on the Nasdaq Global Select Market under the symbol CMCSK. There is no established public trading market for our Class B common stock. Our Class B common stock can be converted, on a share for share basis, into Class A or Class A Special common stock.

We have not declared and paid any cash dividends on our Class A. Class A Special or Class B common stock in our last two fiscal years and do not intend to do so for the foreseeable future.

Holders of our Class A common stock in the aggregate hold  $66\frac{2}{3}\%$  of the voting power of our capital stock. The number of votes that each share of our Class A common stock will have at any given time will depend on the number of shares of Class A common stock and Class B common stock then outstanding. Holders of shares of our Class A Special common stock cannot vote in the election of directors or otherwise, except where class voting is required by law. In that case, holders of our Class A Special common stock will have the same number of votes per share as each holder of Class A common stock. Our Class B common stock has a  $33\frac{1}{3}\%$  nondilutable voting interest, and each share of Class B common stock has 15 votes per share. Mr. Brian L. Roberts beneficially owns all outstanding shares of our Class B common stock. Generally, including as to the election of directors, holders of Class A common stock and Class B common stock vote as one class except where class voting is required by law.

As of December 31, 2006, there were 921,275 record holders of our Class A common stock, 2,266 record holders of our Class A Special common stock and three record holders of our Class B Common Stock.

On January 31, 2007, our Board of Directors approved a three-for-two stock split in the form of a 50% stock dividend (the "Stock Split") payable on February 21, 2007, to shareholders of record on February 14, 2007. The number of shares outstanding and related amounts have been adjusted to reflect the Stock Split for all periods presented.

Period	Total Number of Shares Purchased	Average Price per Share	Total Number of Shares Purchased as Part of Publicty Announced Program	Total Dollars Purchased Under the Program	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Program
First Quarter 2006	41,159,078	\$17.79	40,635,671	\$ 722,951,623	\$4,633,102,630
Second Quarter 2006	33,766,388	\$20.32	33,703,154	\$ 684,881,802	\$3,948,220,828
Third Quarter 2006	21,982,785	\$22.49	21,906,574	\$ 492,632,865	\$3,455,587,963
October 1-31, 2006	909,301	\$24.61	900,000	\$ 22,128,135	\$3,433,459,828
November 1-30, 2006	8,938,358	\$26.01	7,723,326	\$ 200,000,000	\$3,233,459,828
December 1-31, 2006	8,278,608	<u>\$27.43</u>	8,202,432	\$ 225,000,000	\$3,008,459,828
Total Fourth Quarter	18,126,267	\$26.59	16,825,758	\$ 447,128,135	\$3,008,459,828
Total 2006	115,034,518	\$20.82	113,071,157	\$2,347,594,425	\$3,008,459,828

A summary of our repurchases during 2006 under our Board-authorized share repurchase program, on a trade-date basis, is as follows (adjusted to reflect the Stock Split):

The total number of shares purchased during 2006 includes 1,963,361 shares received in the administration of employee share-based plans.

#### **Common Stock Sales Price Table**

We incorporate the table setting forth the high and low sales prices of our Class A and Class A Special common stock required for this item by reference to page 77 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

#### Performance Graph

We incorporate the Performance Graph required for this item by reference to page 77 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

#### ITEM 6: SELECTED FINANCIAL DATA

We incorporate the information required for this item by reference to page 78 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

#### ITEM 7: MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

We incorporate the information required for this item by reference to pages 25 to 36 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

#### ITEM 7A:QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We incorporate the information required for this item by reference to pages 34 to 35 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

#### ITEM 8: FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

We incorporate the information required for this item by reference to pages 39 to 75 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

## ITEM 9: CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

#### **ITEM 9A: CONTROLS AND PROCEDURES**

#### Conclusions regarding disclosure controls and procedures.

Our principal executive officers and principal financial officers, after evaluating the effectiveness of our disclosure controls and procedures (as defined in the Securities Exchange Act of 1934 Rules 13a-15(e) or 15d-15(e)) as of the end of the period covered by this report, have concluded that, based on the evaluation of these controls and procedures required by paragraph (b) of Exchange Act Rules 13a-15 or 15d-15, our disclosure controls and procedures were effective.

#### Management's annual report on internal control over financial reporting.

We incorporate the information required for this item by reference to page 37 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

#### Attestation report of the registered public accounting firm.

We incorporate the information required for this item by reference to page 38 of our 2006 Annual Report to Shareholders set forth as Exhibit 13.1 to this Annual Report on Form 10-K.

#### Changes in internal control over financial reporting.

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

#### **ITEM 9B: OTHER INFORMATION**

None.

#### PART III

#### **ITEM 10: DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

Except for the information regarding executive officers required by Item 401 of Regulation S-K, which is included in Part I of this Annual Report on Form 10-K as Item 4A, we incorporate the information required by this item by reference to our definitive proxy statement for our annual meeting of shareholders presently scheduled to be held in May 2007. We refer to this proxy statement as the 2007 Proxy Statement.

#### **ITEM 11: EXECUTIVE COMPENSATION**

We incorporate the information required by this item by reference to our 2007 Proxy Statement.

#### **ITEM 12: SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

We incorporate the information required by this item by reference to our 2007 Proxy Statement.

#### **ITEM 13: CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

We incorporate the information required by this item by reference to our 2007 Proxy Statement.

#### ITEM 14: PRINCIPAL ACCOUNTANT FEES AND SERVICES

We incorporate the information required by this item by reference to our 2007 Proxy Statement.

We will file our 2007 Proxy Statement for our Annual Meeting of Shareholders with the Securities and Exchange Commission on or before April 30, 2007.

#### PART IV

#### **ITEM 15: EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a.) Index to Consolidated Financial Statements and Schedules

	2006 Annual Report Page
Report of Independent Registered Public Accounting Firm	38
Consolidated Balance Sheet—December 31, 2006 and 2005	39
Consolidated Statement of Operations—Years Ended December 31, 2006, 2005 and 2004	40
Consolidated Statement of Cash Flows-Years Ended December 31, 2006, 2005 and 2004	41
Consolidated Statement of Stockholders' Equity-Years Ended December 31, 2006, 2005 and	
2004	42
Notes to Consolidated Financial Statements	43
Supplementary Information	67

Data submitted herewith:

	2006 Annual Report on Form 10-K Page
Report of Independent Registered Public Accounting Firm	32
Financial Statement Schedule II—Valuation and Qualifying Accounts.	33

All other schedules are omitted because they are not applicable, not required or the required information is included in the consolidated financial statements or notes thereto.

(b) Exhibits required to be filed by Item 601 of Regulation S-K:

- 3.1 Restated Articles of Incorporation of Comcast Corporation (incorporated by reference to Exhibit 3.1 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 3.2 Restated By-Laws of Comcast Corporation (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed on July 6, 2006).
- 4.1 Specimen Class A Common Stock Certificate (incorporated by reference to Exhibit 4.1 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 4.2 Specimen Class A Special Common Stock Certificate (incorporated by reference to Exhibit 4.2 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 4.3 Rights Agreement dated as of November 18, 2002, between Comcast Corporation and EquiServe Trust Company, N.A., as Rights Agent, which includes the Form of Certificate of Designation of Series A Participant's Cumulative Preferred Stock as Exhibit A and the Form of Right Certificate as Exhibit B (incorporated by reference to our registration statement on Form 8-A12g filed on November 18, 2002).
- 4.4 Form of Indenture, dated as of January 7, 2003, between Comcast Corporation, Comcast Cable Communications, LLC, Comcast Cable Communications Holdings, Inc., Comcast Cable Holdings, LLC, Comcast MO Group, Inc., Comcast MO of Delaware, LLC (f/k/a Comcast MO of Delaware, Inc.) and The Bank of New York, as Trustee relating to our 5.85% Notes due 2010, 6.50% Notes due 2011, 7.05% Notes due 2033, 5.30% Notes due 2014, 4.95% Notes due 2016, 5.65% Notes due 2035, 5.45% Notes due 2010, 5.85% Notes due 2015, 5.90% Notes due 2016, 5.875% Notes due 2018, 6.50% Notes due 2035, 6.45% Notes due 2037, 7.00% Notes due 2055 and 7.00% Notes due 2055 Series B (incorporated by reference to Exhibit 4.5 to our registration statement on Form S-3 filed on December 16, 2002).

4.5 Form of Supplemental Indenture, dated March 25, 2003, to the Indenture between Comcast Corporation, Comcast Cable Holdings, LLC, Comcast Cable Communications Holdings, Inc., Comcast Cable Communications, LLC, Comcast MO Group, Inc., Comcast MO of Delaware, LLC (f/k/a Comcast MO of Delaware, Inc.) and The Bank of New York as Trustee, dated as of January 7, 2003 (incorporated by reference to Exhibit 4.25 to our Annual Report on Form 10-K for the year ended December 31, 2003).

Certain instruments defining the rights of holders of long-term obligation of the registrant and certain of its subsidiaries (the total amount of securities authorized under each of which does not exceed ten percent of the total assets of the registrant and its subsidiaries on a consolidated basis), are omitted pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K. We agree to furnish copies of any such instruments to the SEC upon request.

- 9.1 Agreement and Declaration of Trust of TWE Holdings I Trust by and among MOC Holdco I, Inc., Edith E. Holiday and The Capital Trust Company of Delaware (incorporated by reference to Exhibit 99.2 to our Current Report on Form 8-K12g3 filed on November 18, 2002).
- 9.2 Form of Agreement and Declaration of Trust of TWE Holdings II Trust by and among MOC Holdco II, Inc., Edith E. Holiday and The Capital Trust Company of Delaware (incorporated by reference to Exhibit 99.3 to our Current Report on Form 8-K12g3 filed on November 18, 2002).
- 10.1\* Comcast Corporation 1987 Stock Option Plan, as amended and restated effective November 18, 2002 (incorporated by reference to Exhibit 10.1 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 10.2\* Comcast Corporation 2002 Stock Option Plan, as amended and restated effective January 30, 2004 (incorporated by reference to Exhibit 10.2 to our Annual Report on Form 10-K for the year ended December 31, 2003).
- 10.3\* Concast Corporation 2003 Stock Option Plan, as amended and restated effective December 5, 2006.
- 10.4\* Comcast Corporation 2002 Deferred Stock Option Plan, as amended and restated effective February 16, 2005 (incorporated by reference to Exhibit 10.6 to our Annual Report on Form 10-K for the year ended December 31, 2004).
- 10.5\* Comcast Corporation 2002 Deferred Compensation Plan, as amended and restated effective December 5, 2006.
- 10.6\* Comcast Corporation 2005 Deferred Compensation Plan, as amended and restated effective December 14, 2005 (incorporated by reference to Exhibit 10.6 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 10.7\* Comcast Corporation 2002 Restricted Stock Plan, as amended and restated effective December 14, 2005 (incorporated by reference to Exhibit 10.7 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 10.8\* 2004 Management Achievement Plan, as amended and restated effective December 14, 2005 (incorporated by reference to Exhibit 10.8 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 10.9\* 1992 Executive Split Dollar Insurance Plan (incorporated by reference to Exhibit 10(12) to the Comcast Holdings Corporation Annual Report on Form 10-K for the year ended December 31, 1992).
- 10.13\* Comcast Corporation 2002 Non-Employee Director Compensation Plan, as amended and restated, effective January 12, 2005 (incorporated by reference to Exhibit 10.13 to our Annual Report on Form 10-K for the year ended December 31, 2004).
- 10.14\* Comcast Corporation 2002 Employee Stock Purchase Plan, as amended and restated effective December 14, 2005 (incorporated by reference to Exhibit 10.14 to our Annual Report on Form 10-K for the year ended December 31, 2005).

- 10.15\* Concast Corporation Supplemental Executive Retirement Plan, as amended and restated effective June 5, 2001 (incorporated by reference to Exhibit 10.10 to the Comcast Holdings Corporation Annual Report on Form 10-K for the year ended December 31, 2001).
- 10.16\* Employment Agreement between Comcast Corporation and John R. Alchin dated November 7, 2005 (incorporated by reference to Exhibit 99.1 to our Form 8-K filed on November 7, 2005).
- 10.19\* Certificate of Interest of Julian Brodsky under the Comcast Holdings Corporation Unfunded Plan of Deferred Compensation (incorporated by reference to Exhibit 10.21 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 10.20\* Employment Agreement between Comcast Holdings Corporation and Julian A. Brodsky, dated as of May 1, 2002 (incorporated by reference to Exhibit 10.22 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 10.21\* Amendment to Employment Agreement between Comcast Holdings Corporation and Julian A. Brodsky, dated as of November 18, 2002 (incorporated by reference to Exhibit 10.23 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 10.22\* Employment Agreement between Comcast Corporation and Stephen B. Burke dated November 22, 2005 (incorporated by reference to Exhibit 99.1 to our Form 8-K filed on November 22, 2005).
- 10.23\* Amendment No. 1 to Employment Agreement between Comcast Corporation and Stephen B. Burke dated January 25, 2006 (incorporated by reference to Exhibit 10.23 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 10.24\* Employment Agreement between Comcast Corporation and David L. Cohen dated November 7, 2005 (incorporated by reference to Exhibit 99.2 to our Form 8-K filed on November 7, 2005).
- 10.25\* Amendment No. 1 to Employment Agreement between Comcast Corporation and David L. Cohen dated November 11, 2005 (incorporated by reference to Exhibit 10.25 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 10.26\* Amendment No. 2 to Employment Agreement between Comcast Corporation and David L. Cohen dated January 25, 2006 (incorporated by reference to Exhibit 10.26 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 10.27\* Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of June 1, 2005 (incorporated by reference to Exhibit 99.1 to our Form 8-K filed on August 4, 2005).
- 10.28\* Term Life Insurance Premium and Tax Bonus Agreement between Comcast Holdings Corporation and Brian L. Roberts, dated as of September 23, 1998 (incorporated by reference to Exhibit 10.1 to our quarterly report on Form 10-Q for the quarter ended March 31, 2003).
- 10.29\* Amendment to Term Life Insurance Premium and Tax Bonus Agreement between Comcast Corporation and Brian L. Roberts, dated as of May 22, 2006 (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2006).
- 10.30\* Life Insurance Premium and Tax Bonus Agreement between Comcast Corporate and Brian L. Roberts, dated as of May 22, 2006 (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended June 30, 2006).
- 10.31\* Amendment to Life Insurance Premium and Tax Bonus Agreement between Comcast Corporate and Brian L. Roberts, dated as of September 15, 2006 (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2006).
- 10.32\* Compensation and Deferred Compensation Agreement and Stock Appreciation Bonus Plan between Comcast Holdings Corporation and Ralph J. Roberts, as amended and restated March 16, 1994 (incorporated by reference to Exhibit 10(13) to the Comcast Holdings Corporation Annual Report on Form 10-K for the year ended December 31, 1993).

- 10.33\* Compensation and Deferred Compensation Agreement between Comcast Holdings Corporation and Ralph J. Roberts, as amended and restated August 31, 1998 (incorporated by reference to Exhibit 10.1 to the Comcast Holdings Corporation quarterly report on Form 10-Q for the quarter ended September 30, 1998).
- 10.34\* Amendment Agreement to Compensation and Deferred Compensation Agreement between Comcast Holdings Corporation and Ralph J. Roberts, dated as of August 19, 1999 (incorporated by reference to Exhibit 10.2 to the Comcast Holdings Corporation quarterly report on Form 10-Q for the quarter ended March 31, 2000).
- 10.35\* Amendment to Compensation and Deferred Compensation Agreement between Comcast Holdings Corporation and Ralph J. Roberts, dated as of June 5, 2001 (incorporated by reference to Exhibit 10.8 to the Comcast Holdings Corporation Annual Report on Form 10-K for the year ended December 31, 2001).
- 10.36\* Amendment to Compensation and Deferred Compensation Agreement between Comcast Holdings Corporation and Ralph J. Roberts, dated as of January 24, 2002 (incorporated by reference to Exhibit 10.16 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 10.37\* Amendment to Compensation and Deferred Compensation Agreement between Comcast Holdings Corporation and Ralph J. Roberts, dated as of November 18, 2002 (incorporated by reference to Exhibit 10.17 to our Annual Report on Form 10-K for the year ended December 31, 2002).
- 10.38\* Insurance Premium Termination Agreement between Comcast Corporation and Ralph J. Roberts, effective January 30, 2004 (incorporated by reference to Exhibit 10.1 to our Form 10-Q for the quarter ended March 31, 2004).
- 10.39\* Executive Employment Agreement between Comcast Corporation and Lawrence S. Smith dated as of October 1, 2005 (incorporated by reference to Exhibit 99.3 to our Form 8-K filed on November 7, 2005).
- 10.40 Asset Purchase Agreement, dated as of April 20, 2005, between Adelphia Communications Corporation and Comcast Corporation (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K filed on April 26, 2005).
- 10.41 Amendment No. 1, dated June 24, 2005, to the Asset Purchase Agreement dated as of April 20, 2005 between Adelphia Communications Corporation ("Adelphia") and Comcast (incorporated by reference to Exhibit 99.3 to our Current Report on Form 8-K dated July 31, 2006).
- 10.42 Amendment No. 2, to the Asset Purchase Agreement between Adelphia Communications Corporation and Comcast Corporation, dated June 21, 2006 (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K filed on June 27, 2006).
- 10.43 Amendment No. 3, dated June 26, 2006, to the Asset Purchase Agreement dated as of April 20, 2005, between Adelphia and Comcast (incorporated by reference to Exhibit 99.5 to our Current Report on Form 8-K dated July 31, 2006).
- 10.44 Amendment No. 4, dated July 31, 2006, to the Asset Purchase Agreement dated as of April 20, 2005, between Adelphia and Comcast (incorporated by reference to Exhibit 99.6 to our Current Report on Form 8-K dated July 31, 2006).
- 10.45 Redemption Agreement, dated as of April 20, 2005, by and among Comcast Cable Communications Holdings, Inc., MOC Holdco II, Inc., TWE Holdings II Trust, Cable Holdco II Inc., Time Warner Cable Inc. and, for certain limited purposes, Comcast Corporation, Time Warner Inc. and TWE Holdings I Trust (incorporated by reference to Exhibit 2.2 to our Current Report on Form 8-K filed on April 26, 2005).

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- 10.46 Redemption Agreement, dated as of April 20, 2005, by and among Comcast Cable Communications Holdings, Inc., MOC Holdco I, LLC, TWE Holdings I Trust, Cable Holdco III LLC, Time Warner Entertainment Company, L.P. and, for certain limited purposes, Comcast Corporation, Time Warner Inc. and Time Warner Cable Inc. (incorporated by reference to Exhibit 2.3 to our Current Report on Form 8-K filed on April 26, 2005).
- 10.47 Exchange Agreement, dated as of April 20, 2005, by and among Comcast Corporation, Comcast Cable Communications Holdings, Inc., Comcast of Georgia, Inc., TCI Holdings, Inc., Time Warner Cable Inc., Time Warner NY Cable LLC and Urban Cable Works of Philadelphia, L.P. (incorporated by reference to Exhibit 2.4 to our Current Report on Form 8-K filed on April 26, 2005).
- 10.48 Composite copy of Tolling and Optional Redemption Agreement, dated as of September 24, 2004, as amended by Amendment No. 1, dated as of February 17, 2005, and by Amendment No. 2, dated as of April 20, 2005, by and among Comcast Cable Communications Holdings, Inc., MOC Holdco II, Inc., TWE Holdings II Trust, Cable Holdco Inc., Time Warner Cable Inc. and, for certain limited purposes, Comcast Corporation, Time Warner Inc. and TWE Holdings I Trust (incorporated by reference to Exhibit 2.5 to our Current Report on Form 8-K filed on April 26, 2005).
- 10.49 Letter Agreement, dated April 20, 2005, among Adelphia Communications Corporation, Comcast Corporation and Time Warner NY Cable LLC (incorporated by reference to Exhibit 2.6 to our Current Report on Form 8-K filed on April 26, 2005).
- 10.50 Letter Agreement, dated April 20, 2005, between Time Warner Cable Inc. and Comcast Corporation (incorporated by reference to Exhibit 2.7 to our Current Report on Form 8-K filed on April 26, 2005).
- 10.51 Letter Agreement by and among TWE Holdings II Trust, Comcast Corporation, Adelphia Communications Corporation and Time Warner Cable Inc., dated June 21, 2006 (incorporated by reference to Exhibit 2.2 to our Current Report on For 8-K filed on June 27, 2006).
- 10.52 Five Year Revolving Credit Agreement dated as of October 7, 2005 among Comcast Corporation, Comcast Cable Communications Holdings, Inc., the Financial Institutions party thereto and JP Morgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.45 to our Annual Report on Form 10-K for the year ended December 31, 2005).
- 13.1 Pages 25 to 75 and page78 of the 2006 Annual Report to Shareholders, but only to the extent set forth in Items 6-8 and 9A hereof. With the exception of the aforementioned information incorporated by reference in this Annual Report on Form 10-K, the 2006 Annual Report to Shareholders is not deemed "filed" as part hereof.
- 21 List of subsidiaries.
- 23.1 Consent of Deloitte & Touche LLP.
- 31 Certification of Chief Executive Officer and Co-Chief Financial Officers pursuant to Section 302 of the Sarbanes- Oxley Act of 2002.
- 32 Certifications of Chief Executive Officer and Co-Chief Financial Officers pursuant to Section 906 of the Sarbanes- Oxley Act of 2002.

\* Constitutes a management contract or compensatory plan or arrangement.

#### SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in Philadelphia, Pennsylvania on February 26, 2007.

By: <u>/s/ BRIAN L. ROBERTS</u> Brian L. Roberts Chairman and CEO

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ BRIAN L. ROBERTS Brian L. Roberts	Chairman and CEO; Director (Principal Executive Officer)	February 26, 2007
/s/ RALPH J. ROBERTS Ralph J. Roberts	Chairman of the Executive and Finance Committee of the Board of Directors; Director	February 26, 2007
/s/ JULIAN A. BRODSKY Julian A. Brodsky	Non-Executive Vice Chairman; Director	February 26, 2007
/s/ LAWRENCE S. SMITH Lawrence S. Smith	Executive Vice President (Co-Principal Financial Officer)	February 26, 2007
/s/ JOHN R. ALCHIN John R. Alchin	Executive Vice President and Treasurer (Co-Principal Financial Officer)	February 26, 2007
/s/ LAWRENCE J. SALVA Lawrence J. Salva	Senior Vice President, Chief Accounting Officer and Controller (Principal Accounting Officer)	February 26, 2007
/s/ S. DECKER ANSTROM S. Decker Anstrom	Director	February 26, 2007
/s/ EDWARD D. BREEN Edward D. Breen	Director	February 26, 2007
/s/ KENNETH J. BACON Kenneth J. Bacon	Director	February 26, 2007
/s/ SHELDON M. BONOVITZ Sheldon M. Bonovitz	Director	February 26, 2007
/s/ Joseph J. Collins Joseph J. Collins	Director	February 26, 2007
/s/ J. MICHAEL COOK J. Michael Cook	Director	February 26, 2007
/s/ JEFFREY A. HONICKMAN Jeffrey A. Honickman	Director	February 26, 2007
/s/ Dr. JUDITH RODIN Dr. Judith Rodin	Director	February 26, 2007
/s/ MICHAEL I. SOVERN Michael I. Sovern	Director	February 26, 2007

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#### **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Board of Directors and Stockholders Comcast Corporation Philadelphia, Pennsylvania

We have audited the consolidated financial statements of Corncast Corporation and subsidiaries (the "Company") as of December 31, 2006 and 2005, and for each of the three years in the period ended December 31, 2006, management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2006, and the effectiveness of the Company's internal control over financial reporting as of December 31, 2006, and have issued our report thereon dated February 23, 2007 (which report expresses an unqualified opinion and includes an explanatory paragraph concerning the adopting of a new accounting pronouncement in 2006); such consolidated financial statements and report are included in the 2006 Annual Report to Shareholders and incorporated by reference in this Form 10-K. Our audits also included the consolidated financial statement schedule of Corncast Corporation and its subsidiaries, listed in Item 15(a). This consolidated financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion based on our audits. In our opinion, such consolidated financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ Deloitte & Touche LLP Philadelphia, Pennsylvania February 23, 2007

#### **Comcast Corporation and Subsidiaries**

#### Schedule II----Valuation and Qualifying Accounts

Years Ended December 31, 2006, 2005 and 2004

(In millions)	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Deductions from Reserves(a)	Balance at End of Year
Allowance for Doubtful Accounts				
2006	\$132	\$279	\$254	\$157
2005	127	245	240	132
2004	142	226	241	127

(a) Uncollectible accounts written off.

#### CERTIFICATIONS

I, Brian L. Roberts, certify that:

- 1. I have reviewed this annual report on Form 10-K of Comcast Corporation;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2007

/s/ BRIAN L. ROBERTS

Name:

Brian L. Roberts Chief Executive Officer I, Lawrence S. Smith, certify that:

- 1. I have reviewed this annual report on Form 10-K of Comcast Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- Based on my knowledge, the financial statements, and other financial information included in this report. fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2007

/s/ LAWRENCE S. SMITH

Name:

Lawrence S. Smith Co-Chief Financial Officer I, John R. Alchin, certify that:

- 1. I have reviewed this annual report on Form 10-K of Comcast Corporation;
- Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 26, 2007

/s/ JOHN R. ALCHIN

Name:

John R. Alchin Co-Chief Financial Officer

February 26. 2007

Securities and Exchange Commission 450 Fifth Street, N.W. Washington, D.C. 20549

Ladies and Gentlemen:

The certification set forth below is being submitted in connection with the annual report on Form 10-K of Comcast Corporation (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Certification Pursuant to Section 906 of the Sarbanes-Oxley Act

Brian L. Roberts, the Chief Executive Officer, Lawrence S. Smith, the Co-Chief Financial Officer and John R. Alchin, the Co-Chief Financial Officer of Comcast Corporation, each certifies that, to the best of his knowledge:

- 1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Comcast Corporation.

	/s/ BRIAN L. ROBERTS
Name:	Brian L. Roberts Chief Executive Officer
	/s/ LAWRENCE S. SMITH
Name:	Lawrence S. Smith
	Co-Chief Financial Officer
	/s/ JOHN R. ALCHIN
Name:	John R. Alchin
	Co-Chief Financial Officer

#### Exhibit 32



## **2007 ANNUAL REPORT**

# STATEMENT OF CAPITAL EXPENDITURES AND MAJOR EQUIPMENT EXPENDITURES

AUGUST 30, 2007

# Statement of Major Capital Equipment and Expenditures

### Actual 2007

Comcast designated approximately \$255,450 for network extensions within the City of Alexandria. Trending indicates that this will be spent by year-end. Funds were designated for the purchase of Digital converters in the amount of \$284,024 and High Definition (HD) converter boxes in the amount of \$315,293. An additional \$1,320,155 was designated for HD Digital Voice Recorders (DVR). Total projected converter expenditures was \$1,919,472 with a year-end estimate of \$345,000.

### **Projected 2008**

Comcast plans to designate approximately \$416,120 for network extensions in the City of Alexandria. In addition, funds will be designated for the purchase of Digital converters in the amount of \$265,588 and High Definition converter boxes in the amount of \$409,574. Funds in the amount of \$961,089 will be designated for HD DVRs. Total projected converter expenditures are \$1,636,251.

Comcast also plans to spend \$369,521 for expansion of VOD equipment, which will increase content hours in 2008.



# **2007 ANNUAL REPORT**

# **CONSTRUCTION PLAN**

AUGUST 30, 2007

# **CONSTRUCTION UPDATE**

Through June 30, 2007 the construction department has designed, constructed and activated .62 miles of cable plant that included both coaxial, and fiber hardline.

A monitoring system was installed at all the nodes, which allows Comcast to remotely track activity in the field and proactively respond to issues. The monitoring system gives us the ability to identify potential problems and implement corrective action before they become customer impacting. It also gives us the ability to isolate outages and dispatch repairs crews before we are contacted by customers.

Capacity planning of our nodes is critical to the success of the seamless provision of services. By splitting nodes, and reducing the number of customers on a per node basis, we can manage the use of Video on Demand and Internet services, and reduce latency issues.

The Headend completed the deployment of ADS, digital simulcasting of the channels, when they moved the broadcast channels over to digital. Customers with digital converter boxes receive the signal digitally; customers without boxes receive the original analog signal. This positions us well for the conversion to all digital in February of 2009.

The FCC mandate to implement Separable Security Converter Boxes was effective July 1, 2007. The system tested and field trialed the new separable security converter boxes during June 2007 without incident.

Comcast is working with the Alexandria Police Department upgrading and fiber and equipment on the CARES project.

Video On Demand hours were increased to 6,000 hours

Deployment of Comcast Digital Voice service continues to grow.



# **2007 ANNUAL REPORT**

# COMCAST OFFICERS AND BOARD OF DIRECTORS

AUGUST 30, 2007

### Board of Directors and Corporate Executives

S. Decker Anstrom President and Chief Operating Officer Landmark Communications, Inc.

Kenneth J. Bacon Executive Vice President Housing and Community Development Fannie Mae

Sheldon M. Bonovitz

Chairman and Chief Executive Officer Duane Morris LLP Edward D. Breen Chairman and Chief Executive Officer Tyco International. Ltd.

Julian A. Brodsky Non-Executive Vice Chairman

Joseph J. Collins Chairman Aegis, LLC Retired Chairman and Chief Executive Officer Time Warner Cable J. Michael Cook Retired Chairman and Chief Executive Officer Deloitte & Touche LLP

Jeffrey A. Honickman Chief Executive Officer Pepsi-Cola and National Brand Beverage, Ltd.

Brian L. Roberts Chairman and CEO Ralph J. Roberts Founder Chairman, Executive and Finance Committee

**Dr. Judith Rodin** President The Rockefeller Foundation

Michael I. Sovern Chairman Sotheby's Holdings, Inc.

Brian L. Roberts Chairman and Chief Executive Officer

Ralph J. Roberts Founder Chairman, Executive and Finance Committee

John R. Alchin Executive Vice President and Co-Chief Financial Officer

Stephen B. Burke Executive Vice President and Chief Operating Officer President, Corncast Cable

David L. Cohen Executive Vice President

Lawrence S. Smith Executive Vice President and Co-Chief Financial Officer

Amy L. Banse Senior Vice President Interactive Media President Comcast Interactive Media Arthur R. Block Senior Vice President, General Counsel and Secretary

Mark A. Coblitz Senior Vice President Strategic Planning

Robert S. Pick Senior Vice President Corporate Development

Lawrence J. Salva Senior Vice President, Chief Accounting Officer and Controller

C. Stephen Backstrom Vice President Taxation

Payne D. Brown Vice President Strategic Initiatives

Karen Dougherty Buchholz Vice President Administration Joseph F. DiTrolio Vice President Financial Operations

Marlene S. Dooner Vice President Investor Relations

William E. Dordelman Vice President Finance

Kamai Dua Vice President Internal Audit and General Auditor

Leonard J. Gatti Vice President Financial Reporting

**Gregg M. Goldstein** Vice President Corporate Development

Kerry Knott Vice President Government Affairs Charisse R. Lille Vice President Human Resources

Kenneth Mikalauskas Vice President Finance

Marc A. Rockford Vice President and Senior Deputy General Counsel

D'Arcy F. Rudinay Vice President Corporate Communications

Joseph W. Waz, Jr. Vice President External Affairs and Public Policy Counsel

### **Division Executives**

Stephen B. Burke President

**David A. Scott** Executive Vice President Finance and Administration

**David N. Watson** Executive Vice President Operations

Madison Bond Executive Vice President Content Acquisition

**David A. Juliano** Executive Vice President Marketing and Product Development

Jeff Shell President

Joseph M. Donnelly Chief Financial Officer

**David T. Cassaro** President Comcast Network Advertising Sales

Amy L. Banse President

Edward M. Snider Chairman

Fred A. Shabel Vice Chairman John D. Schanz Executive Vice President National Engineering and Technology Operations

Tony G. Werner Executive Vice President and Chief Technology Officer

Catherine Avgiris Senior Vice President and General Manager Voice Services

**Greg R. Butz** Senior Vice President Product Development General Manager Media Services

Ted Harbert President and CEO Comcast Entertainment Group

Gavin Harvey President VERSUS

**David Manougian** Chief Executive Officer The Golf Channel

Samuel H. Schwartz Executive Vice President Strategy and Development

Peter A. Luukko President **Douglas Gaston** General Counsel

Suzanne L. Keenan Senior Vice President Customer Service and Comcast University

**Charisse R. Lille** Senior Vice President Human Resources

Kevin M. Casey President Northern Division

William Connors President Midwest Division

Diane L. Robina President Emerging Networks

Rod Shanks President AZN

**Neal Tiles** President G4 Michael A. Doyle President Eastern Division

**Bradley P. Dusto** President Western Division

John H. Ridall President Southern Division

William E. Stemper President Comcast Business Services

Charles W. Thurston President Corncast Spotlight

Sandy Wax President and General Manager PBS KIDS Sprout

Jack L. Williams President Comcast Sports Management Services President and Chief Executive Offier Comcast SportsNet

Sanford Lipstein Executive Vice President Finance and Chief Financial Officer Philip I. Weinberg Executive Vice President and General Counsel ····· —···p···j·· =······ •····· • ······ • ······

Effective: November 1, 2003 Most Recent Revision Effective Date: January 1, 2006

#### Purpose:

To provide a guideline for the ownership of Comcast Corporation employee directors of the Company.

### **Policy Statement:**

It is the Company's policy to require that all non-employee directo maintain a significant ownership position in Comcast Corporation Stock, as defined in the guideline set forth herein.

# I. Ownership Guideline

Non-employee directors will be required to own Comcast Corporation pu in value to at least five (5) times a director's annual retainer.

# **II. Ownership Defined**

Ownership (for purposes of meeting the guideline) will be determined by

i. 100% of the market value of Comcast Corporation Common Sto non-employee director or his or her spouse, (2) jointly by the nonor her spouse and/or his or her children, and (3) indirectly by a tru employee director, his or her spouse and/or his or her minor child

ii. 100% of the market value of the non-employee director's Deferr Company's Deferred Stock Option Plan.

iii. 60% of the market value of the non-employee director's Stock I Deferred Compensation Plan.

iv. 60% of the difference between the market price and the exercis employee director's vested stock options under the Company's St sale of a call covered by shares or vested options will be deemed shares or options and will therefore reduce the number of owned : purposes of this Policy).

v. 60% of the market value of Comcast Corporation Common Stor under the Company's Restricted Stock Plan.

# III. Valuation Date

Ownership as of any date for purposes of determining compliance with t based on the closing price of the applicable class of Comcast Corporatic date prior to the date of determination.

# IV. Grace Period

election or appointment to the Board of Directors through the fifth December 31st thereafter, as set forth below (the "Grace Period"). For non-employee directors serving as of the original effective date of this Policy, November 1, 2003, shall be deemed to be the date of initial election or appointment. The Grace Period may be extended at the discretion of the Governance and Directors Nominating Committee of the Board of Directors.

Non-employee directors may satisfy the guideline in part over the course of the Grace Period, as follows:

December 31st Following Initial	Required Minimum Holdings as a
Election or Appointment	Percent of Guideline
1st	20%
2nd	40%
3rd	60%
4th	80%
5th and Thereafter	100%

# V. Compliance

Non-employee directors will annually certify whether or not they are in compliance with this Policy both (i) as of December 31 each year and (ii) as of each date (if any) during each year on which the nonemployee director sold or otherwise disposed of stock. Certifications will be provided to the Cable Division's Vice President - Compensation and Benefits using the Comcast Corporation Executive Stock Ownership Policy Compliance Certification Form.

### VI. Non-Compliance

Non-employee directors will not be permitted to sell stock until their holdings meet the applicable minimum requirement, and then only to the extent that the director's remaining holdings do not fall below the minimum requirement.

# VII. Hardship Provision

Hardship exceptions may be made at the discretion of the Chairman of the Governance and Directors Nominating Committee.

# VIII. Administration and Interpretation

The Governance and Directors Nominating Committee reserves the right to interpret, change, amend, modify or terminate this Policy at any time.

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# **Executive Stock Ownership Policy**

Original Effective Date: November 1, 2003 Most Recent Revision Effective Date: January 1, 2006 To provide a guideline for the ownership of Comcast Corporation Common Stock by designated members of senior management.

#### **Policy Statement:**

It is the Company's policy to require that designated members of senior management of Comcast Corporation, its Cable Division and its Programming Division maintain a significant ownership position in Comcast Corporation publicly traded Common Stock, as defined in the applicable guideline set forth herein.

# I. Ownership Guideline

The following designated members of senior management will be expected to own Comcast Corporation Common Stock based on the following applicable guideline:

Position	Guideline
Chief Executive Officer, President, and Chairman of the Board of Directors	At least 5 times base salary
Chairman of the Executive and Finance Committee of the Board of Directors; and Non-Executive Vice Chairman of the Board of Directors	At least 4 times base slary
Chief Operating Officer and Cable Division President; Corporate Division Executive Vice Presidents	At least 3 times base salary
Corporate Division Senior Vice Presidents; Cable Division Executive Vice Presidents; Cable Division Divisional and Business Unit Presidents; and Programming Division President	At least 1.5 times base salary

Additional employees or categories of employees may be designated as being subject to this Policy from time to time by the Governance and Directors Nominating Committee of the Board of Directors.

# II. Ownership Defined

Ownership (for purposes of meeting the applicable guideline) will be determined by summing the following amounts:

i. 100% of the market value of Comcast Corporation Common Stock owned (1) directly by the employee or his or her spouse, (2) jointly by the employee and his or her spouse and/or his or her children, and (3) indirectly by a trust for the benefit of the employee, his or her spouse and/or his or her minor children.

ii. 100% of the market value of the employee's Deferred Stock Units under the Company's Deferred Stock Option Plan.

employee's account under the Company's Employee Stock Purchase Plan. (Note: Employees are required under this Policy to retain shares of Comcast Corporation Common Stock credited to his or her brokerage account under the Employee Stock Purchase Plan for a period of one hundred eighty (180) days from the date credited. Thereafter, any such shares may be disposed in accordance with law and this Policy).

iv. 60% of the market value of the employee's Stock Fund under the Company's Deferred Compensation Plan.

v. 60% of the difference between the market price and the exercise price of the employee's vested stock options under the Company's Stock Option Plans. (Note: A sale of a call covered by shares or vested options will be deemed a sale of the underlying shares or options and will therefore reduce the number of owned shares or vested options for purposes of this Policy).

vi. 60% of the market value of Comcast Corporation Common Stock owned in the Company's Retirement-Investment (401(k)) Plan.

vii. 60% of the market value of Comcast Corporation Common Stock vested and deferred under the Company's Restricted Stock Plan.

### III. Valuation Date

Ownership as of any date for purposes of determining compliance with the applicable guideline, will be calculated based on the closing price of the applicable class of Comcast Corporation Common Stock as of the trading date prior to the date of determination.

# IV. Grace Period

Employees will be allowed a grace period to meet the applicable guideline in full, from the date of initial hire through the fifth December 31st thereafter, as set forth below (the "Grace Period"). For employees employed as of the original effective date of this Policy, November 1, 2003, shall be deemed to be the date of hire. The Grace Period may be extended at the discretion of the Governance and Directors Nominating Committee.

Designated employees may satisfy the guideline in part over the course of the Grace Period, as follows:

December 31st Following date of Hire	Required Minimum Holdings as a Percent of Guideline
1st	20%
2nd	40%
3rd	60%
4th	80%
5th and Thereafter	100%

Employees will annually certify whether or not they are in compliance with this Policy both (i) as of December 31 prior to the year of the year in which the certification is made, and (ii) as of each date (if any) during the year prior to the year in which the certification is made on which the employee sold or otherwise disposed of stock. Certifications will be provided to the Cable Division's Vice President - Compensation and Benefits using the Comcast Corporation Executive Stock Ownership Policy Compliance Certification Form.

# VI. Non-Compliance

Designated employees will not be permitted to sell or otherwise dispose of stock until their holdings meet the applicable minimum requirement, and then only to the extent that the employee's remaining holdings do not fall below the minimum requirement. In determining whether an employee is in compliance, the Governance and Directors Nominating Committee may take into account any non-compliance that occurs solely or primarily as a result of a decline of the market price of the stock.

# VII. Hardship Provision

Hardship exceptions, upon the recommendation of senior management, may be made by the Chairman of the Governance and Directors Nominating Committee.

# VIII. Administration and Interpretation

The Governance and Directors Nominating Committee reserves the right to interpret, change, amend, modify or terminate this Policy at any time.

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#### Notice of 2004 Annual Meeting of Shareholders of Comcast Corporation

Date:	May 26, 2004	
Time:	Doors open: Meeting begins:	8:00 a.m. Eastern Time 9:00 a.m. Eastern Time
Discor	Weshavis Comp	lav

Place: Wachovia Complex 3601 South Broad Street Philadelphia, Pennsylvania 19148

#### Purposes: • Elect directors

- Ratify the appointment of our independent auditors
- Approve the 2002 Restricted Stock Plan
- Approve an amendment to our Articles of Incorporation
- Vote on five shareholder proposals
- · Conduct other business if properly raised

Only shareholders of record on March 15, 2004 may vote at the meeting. Attendance at the meeting is limited to shareholders and one guest.

All shareholders are cordially invited to attend the meeting. Travel directions may be found on page 54 of the attached proxy statement. At the meeting you will hear a report on our business and have a chance to meet our directors and executive officers. Our 2003 Annual Report is enclosed.

Your vote is important. Please vote your shares promptly. To vote your shares, you can use the Internet or call the toll-free telephone number as described in the instructions on your proxy card, or complete, sign, date and return your proxy card.

ARTHUR R. BLOCK Secretary

April 8, 2004

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#### **PROXY STATEMENT**

#### **GENERAL INFORMATION**

#### Who May Vote

Holders of our Class A and Class B Common Stock, as reflected in our records on March 15, 2004, may vote at the meeting. Holders of our Class A Special Common Stock are not entitled to vote at the meeting. This proxy statement is being sent to holders of Class A Special Common Stock for informational purposes only. This proxy statement and the enclosed proxy card are being sent to our shareholders on or about April 12, 2004.

#### How to Vote

You may vote in person at the meeting or by proxy. We recommend that you vote by proxy even if you plan to attend the meeting. You can always change your vote at the meeting.

#### How Proxies Work

Comcast's Board of Directors is asking for your proxy. Giving us your proxy means you authorize us to vote your shares at the meeting in the manner you direct. You may vote for all, some or none of our director candidates. You may also vote for or against the other proposals, or abstain from voting.

If you are a registered shareholder (meaning your name is included on the securityholder file maintained by our transfer agent, Equiserve Trust Company, N.A., whether you hold your shares in book-entry through Equiserve or in certificated form), you can vote by proxy in any of the following ways:

- Via the Internet: Go to www.eproxyvote.com/cmcsa and follow the instructions. You will need to enter the number in the shaded box printed on your proxy card.
- By telephone: Call toll-free 1-877-779-8683 and follow the instructions. You will need to enter the number in the shaded box printed on your proxy card.
- In writing: Complete, sign, date and return your proxy card in the enclosed envelope.

If you vote via the Internet or by telephone, your vote must be received by 5:00 p.m. Eastern Time on May 25, 2004.

If you give us your signed proxy but do not specify how to vote, we will vote your shares in favor of the director candidates, the ratification of the appointment of our independent auditors, the approval of the 2002 Restricted Stock Plan and the approval of the amendment to our Articles of Incorporation, and against the five shareholder proposals.

If your shares are held in the name of your bank, brokerage firm or other nominee, you will receive instructions from them that you must follow in order to have your shares voted.

If your shares are held in the Comcast Corporation Retirement-Investment Plan, your shares will be voted as you specify on your proxy card. If you hold shares in the Comcast Corporation Retirement-Investment Plan and do not return a proxy card, your shares will not be voted.

#### Matters to be Presented

We are not aware of any matters to be presented other than those described in this proxy statement. If any matters not described in this proxy statement are properly presented at the meeting, the proxies will use their own judgment to determine how to vote your shares. If the meeting is postponed or adjourned, the proxies will vote your shares on the new meeting date, unless you have revoked your proxy.

#### **Revoking a Proxy**

You may revoke your proxy before it is voted by:

- Submitting a new proxy with a later date, including a proxy given via the Internet or by telephone;
- · Notifying our Secretary in writing before the meeting; or
- Voting in person at the meeting.

#### Attending in Person

Attendance at the meeting is limited to shareholders and one guest. For safety and security reasons, video and audio recording devices and other electronic devices will not be allowed in the meeting. All meeting attendees may be asked to present a valid, government-issued photo identification, such as a driver's license or passport, before entering the meeting, and attendees may be subject to security inspections.

For registered shareholders, an admission ticket is attached to your proxy card. Please bring the admission ticket with you to the meeting. Shareholders who do not present an admission ticket at the meeting will be admitted only upon verification of ownership.

If your shares are held in the name of your bank, brokerage firm or other nominee, you must bring to the meeting an account statement or letter from the nominee indicating that you beneficially owned the shares on March 15, 2004, the record date for voting. You may receive an admission ticket in advance by sending a written request with proof of ownership, such as a recent bank or brokerage statement, to Comcast Corporation, in care of EquiServe, Client Administration, 150 Royall Street, Canton, Massachusetts 02021.

#### Webcast of the Meeting

We are pleased to offer an audio webcast of the annual meeting. If you choose to listen to the audio webcast, you may do so at the time of the meeting through the link on www.cmcsa.com or www.cmcsk.com.

#### Conduct of the Meeting

The Chairman of the Board has broad authority to conduct the annual meeting in an orderly manner. This authority includes establishing rules for shareholders who wish to address the meeting. Copies of these rules will be available at the meeting. The Chairman may also exercise broad discretion in recognizing shareholders who wish to speak and in determining the extent of discussion on each item of business. The Chairman may also rely on applicable law regarding disruptions or disorderly conduct to ensure that the meeting is conducted in a manner that is fair to all shareholders.

#### **Contacting Comcast or its Directors**

If you have questions or would like more information about the annual meeting, you can contact us in any of the following ways:

 Via the Internet: Go to our website, www.cmcsa.com or www.cmcsk.com, and click on "2004 Annual Meeting of Shareholders" to find meeting logistics, vote your proxy or access additional shareholder information.

- By telephone: Call toll-free 1-866-281-2100.
- By writing to the following address:

Arthur R. Block Secretary Comcast Corporation 1500 Market Street Philadelphia, Pennsylvania 19102-2148

The Board has provided a process for shareholders to communicate with its members. Shareholders and other interested parties who wish to communicate with our directors may address their correspondence to the Board, to a particular director, to the non-employee directors or to any other group of directors or committee of the Board, in care of Arthur R. Block, Secretary, Comcast Corporation, at the address given above. You may also send an e-mail in care of the Chairman of the Audit Committee of the Board by using the following e-mail address: audit\_committee\_chairman@comcast.com.

#### **Corporate Governance**

The Board has adopted corporate governance guidelines. These guidelines address items such as the standards, qualifications and responsibilities of our directors and director candidates, and corporate governance policies and standards applicable to us in general. In addition, we have a code of ethics and business conduct which applies to all our employees, including our executive officers. We expect that an updated code of ethics and business conduct, also applicable to our directors, will be available on our website by May 4, 2004. Both the code and the guidelines are posted on the corporate governance section of our website at www.cmcsa.com or www.cmcsk.com. The charter of each of the Board's Governance and Directors Nominating Committee, Audit Committee and Compensation Committee are also posted on our website. More information on our Board and its committees can be found on page 9 of this proxy statement.

#### VOTING SECURITIES AND PRINCIPAL HOLDERS

#### **Outstanding Shares and Voting Rights**

At the close of business on March 15, 2004, the record date, we had outstanding 1,358,148,851 shares of Class A Common Stock, 9,444,375 shares of Class B Common Stock and 884,239,165 shares of Class A Special Common Stock.

On each matter to be voted upon, the Class A Common Stock and Class B Common Stock will vote together. As of the record date, each holder of Class A Common Stock is entitled to 0.2086 votes per share and each holder of Class B Common Stock is entitled to 15 votes per share. Holders of Class A Special Common Stock are not entitled to vote at the meeting.

In order to carry on the business of the meeting, we must have a quorum. This means that for each matter presented, shareholders entitled to cast a majority of the votes that shareholders are entitled to cast on that matter must be represented at the meeting, either in person or by proxy. If the meeting is adjourned for one or more periods aggregating at least 15 days due to the absence of a quorum, shareholders who are entitled to vote and who attend the adjourned meeting, even though they do not constitute a quorum as described above, will constitute a quorum for the purpose of acting on any matter described in this proxy statement.

The director candidates who receive the most votes will be elected to fill the available seats on the Board. Approval of the other proposals requires the favorable vote of a majority of the votes cast. Only votes for or against a proposal count. Abstentions and broker non-votes count for quorum purposes but not for voting purposes. Broker non-votes occur on a matter when a bank, brokerage firm or other nominee is not permitted to vote on that matter without instruction from the owner of the shares and no instruction is given. Mr. Brian L. Roberts, our President and Chief Executive Officer and one of our directors, beneficially owns all of the outstanding Class B Common Stock and has indicated that he will vote all of these shares in favor of the director candidates, the ratification of the appointment of our independent auditors, the approval of the 2002 Restricted Stock Plan and the approval of the amendment to our Articles of Incorporation, and against the five shareholder proposals.

#### **Principal Shareholders**

This table sets forth information as of February 29, 2004 about persons we know to beneficially own more than five percent of any class of our voting common stock.

Title of Voting Class	Name and Address of Beneficial Owner	Amount Beneficially Owned	Percent of Class	
Class A Common Stock	Microsoft Corporation One Microsoft Way Redmond, WA 98053	100,623,717(1)	7.4%	
	Barclays plc 54 Lombard Street London, England EC3P 3AH	72,760,530(2)	5.4%	
Class B Common Stock	Brian L. Roberts 1500 Market Street Philadelphia, PA 19102-2148	9,444,375(3)	100%	

(1) This information is based upon a filing with the Securities and Exchange Commission dated November 25, 2002 made by Microsoft setting forth information as of November 18, 2002.

- (2) This information is based upon a filing with the Securities and Exchange Commission dated February 17, 2004 made by Barclays setting forth information as of February 13, 2004. Shares listed as beneficially owned by Barclays are owned by the following entities: Barclays Global Investors, NA, Barclays Global Fund Advisors, Barclays Global Investors, Ltd., Barclays Global Investors Japan Trust and Banking Company Limited, Barclays Life Assurance Company Limited, Barclays Bank plc, Barclays Capital Securities Limited, Barclays Capital Inc., Barclays Private Bank & Trust (Isle of Man) Limited, Barclays Private Bank and Trust (Jersey) Limited, Barclays Bank Trust Company Limited, Barclays Bank (Suisse) SA and Barclays Private Bank Limited.
- (3) Includes 9,039.663 shares of Class B Common Stock owned by a limited liability company of which Mr. Brian L. Roberts is the managing member and 404,712 shares of Class B Common Stock owned by certain family trusts. The shares of Class B Common Stock beneficially owned by Mr. Brian L. Roberts represent 33 1/3% of the combined voting power of the two classes of our voting common stock, which percentage is generally non-dilutable pursuant to the terms of our Articles of Incorporation. Under our Articles of Incorporation, each share of Class B Common Stock is convertible, at the shareholder's option, into one share of Class A Common Stock or Class A Special Common Stock. For information regarding Mr. Brian L. Roberts' beneficial ownership of Class A Common Stock, see footnote (12) under "Security Ownership of Directors and Executive Officers" below.

#### Security Ownership of Directors and Executive Officers

This table sets forth information as of February 29, 2004 about the amount of common stock beneficially owned by our current directors, the executive officers named in the Summary Compensation Table below, and the directors and executive officers as a group.

	Amount Beneficially Owned(1)		Percent of Class			
Name of Beneficial Owner	Class A(2)	Class A Special(3)	Class B	Class A(2)	Class A Special(3)	Class B
John R. Alchin	1,036	1,523,889(4)	—	*	*	
S. Decker Anstrom	8,584	16,000		*	*	
C. Michael Armstrong	2,633,050	_		*	*	_
Kenneth J. Bacon	15,300	_		*	*	
Sheldon M. Bonovitz	20,925(5)	188,458(6)		*	*	
		38,967(7)			*	
Julian A. Brodsky	124,457	2,528,988(8)	_	*	*	
•		1,859,311(7)			*	
Stephen B. Burke	1,492(9)	2,554,286(10)	—	*	*	_
Joseph L. Castle, II	6,000	21,569	_	*	*	_
David L. Cohen	474	10,528	_	*	*	
J. Michael Cook	14,359(11)	2,300	_	*	*	
Brian L. Roberts	3,017(12)	12,604,024(13)	9,444,375(	(14) *	1.4%	100%(14
Ralph J. Roberts		4,314,940(15)		*	*	·
		4,164,523(7)			*	
Dr. Judith Rodin	8.584			*	*	
Lawrence S. Smith	1,768(16)	1,452,752	_	*	*	_
Michael I. Sovern	14,989		_	*	*	
All directors and executive officers as a group (17						
persons)	2,854,673	32,057,803	9,444,375	(14) *	3.5%	100%(14
_	(5)(9)(11)(12)	(4)(6)(8)(10)(13)				
	(16)	(15)(17)(18)				

Less than one percent of the applicable class.

- (1) Beneficial ownership as reported in the above table has been determined in accordance with Rule 13d-3 of the Securities and Exchange Act of 1934.
- (2) Includes beneficial ownership of shares of Class A Common Stock for which the following persons hold options exercisable on or within 60 days of February 29, 2004: Mr. Anstrom, 7,500 shares; Mr. Armstrong, 2,200,795 shares; Mr. Bacon, 7,500 shares; Mr. Bonovitz, 7,500 shares; Mr. Castle, 5,625 shares; Mr. Cook, 10,688 shares; Dr. Rodin, 7,500 shares; Mr. Sovern, 10,689 shares; and all directors and executive officers as a group, 2,257,797 shares.
- (3) Includes beneficial ownership of shares of Class A Special Common Stock for which the following persons hold options exercisable on or within 60 days of February 29, 2004: Mr. Alchin, 1,391,887 shares; Mr. Anstrom, 14,400 shares; Mr. Bonovitz, 16,200 shares; Mr. Brodsky, 1,386,088 shares; Mr. Burke, 2,520,230 shares; Mr. Castle, 16,200 shares; Mr. Brian L. Roberts, 9,654,861 shares; Mr. Ralph J. Roberts, 2,278,402 shares; Mr. Smith, 1,309,030 shares; and all directors and executive officers as a group, 19,302,402 shares. Does not include interests owned indirectly in Comcast Interactive Capital, L.P., a limited partnership that is consolidated in our financial statements, as follows: Mr. Alchin, .88%; Mr. Burke, .88%; Mr. Brian L. Roberts, 1.18%; Mr. Ralph J. Roberts, 1.18%; Mr. Smith, .94%; and all directors and executive officers as a group, 5.94%. Does not include Mr. Brodsky's approximately 38% interest in the general partner of Comcast Interactive Capital, in which we own no interest.
- (4) Includes 29 shares of Class A Special Common Stock owned in our Retirement-Investment Plan.

- (5) Includes 6,425 shares of Class A Common Stock owned by his wife, 104 shares held by him as trustee for a testamentary trust, as to all of which shares he disclaims beneficial ownership, and 3.877 shares owned by family partnerships.
- (6) Includes 4.498 shares of Class A Special Common Stock owned by his wife, 40,000 shares held by him as a trustee of grantor retained annuity trusts, 10,476 shares owned by a charitable foundation of which his wife is a trustee, as to all of which shares he disclaims beneficial ownership, and 112,528 shares owned by family partnerships.
- (7) Represents share equivalents which will be paid at a future date partially in cash and/or in stock at the individual's election pursuant to an election made under our 2002 Deferred Stock Option Plan.
- (8) Includes 290,042 shares of Class A Special Common Stock owned in two separate grantor retained annuity trusts, as to all of which shares he disclaims beneficial ownership.
- (9) Includes 1,054 shares of Class A Common Stock owned in our Retirement-Investment Plan.
- (10) Includes 23,072 shares of Class A Special Common Stock owned in our Retirement-Investment Plan.
- (11) Includes 1,617 shares of Class A Common Stock owned by his wife, as to which shares he disclaims beneficial ownership.
- (12) Includes 1,661 shares of Class A Common Stock owned in our Retirement-Investment Plan and 1,356 shares owned by his wife, as to which shares he disclaims beneficial ownership. Does not include shares of Class A Common Stock issuable upon conversion of Class B Common Stock beneficially owned by Mr. Brian L. Roberts. If Mr. Brian L. Roberts were to convert the Class B Common Stock that he beneficially owns into Class A Common Stock, Mr. Brian L. Roberts would beneficially own 9,447,392 shares of Class A Common Stock, representing less than 1% of the Class A Common Stock.
- (13) Includes 41,132 shares of Class A Special Common Stock owned in our Retirement-Investment Plan. Also includes 2,712 shares owned by his wife and 160 shares owned by his daughter, as to all of which shares he disclaims beneficial ownership. Also includes 2,408,638 shares owned by a limited liability company of which Mr. Brian L. Roberts is the managing member, and 122,163 shares owned by certain non-grantor family trusts, but does not include shares of Class A Special Common Stock issuable upon conversion of Class B Common Stock beneficially owned by Mr. Brian L. Roberts. If Mr. Brian L. Roberts were to convert the Class B Common Stock that he beneficially owns into Class A Special Common Stock, Mr. Brian L. Roberts would beneficially own 22,048,399 shares of Class A Special Common Stock, representing approximately 2.4% of the Class A Special Common Stock.
- (14) See note (3) under "Principal Shareholders".
- (15) Includes 346,456 shares of Class A Special Common Stock owned by family partnerships, the general partners of which are controlled by Mr. Ralph J. Roberts.
- (16) Includes 1,294 shares of Class A Common Stock owned in an individual retirement account.
- (17) Includes share equivalents which will be paid at a future date partially in cash and/or in stock at the individual's election pursuant to an election made under our 2002 Deferred Stock Option Plan.
- (18) Includes 1,420 shares of Class A Special Common Stock owned by the children of an executive officer, other than those named above, as to which shares beneficial ownership is disclaimed.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Our directors and executive officers file reports with the Securities and Exchange Commission indicating the number of shares of any class of our equity securities they owned when they became a director or executive officer and, after that, any changes in their ownership of our equity securities. They must also provide us with copies of these reports. These reports are required by Section 16(a) of the Securities Exchange Act of 1934. We have reviewed copies of the reports we received and written representations from the individuals required to file the reports. Based on this review, we believe that during 2003 each of our directors and executive officers has complied with applicable reporting requirements for transactions in our equity securities.

#### **PROPOSAL 1: ELECTION OF DIRECTORS**

The Board's Governance and Directors Nominating Committee has nominated the director candidates named below. All of these nominees currently serve as our directors. All of our directors are elected for one-year terms.

If a director nominee becomes unavailable before the election, your proxy authorizes the people named as proxies to vote for a replacement nominee if the Governance and Directors Nominating Committee names one.

The Board has determined that each of our non-employee directors, with the exception of Mr. Bonovitz, is independent in accordance with the director independence definition specified in our corporate governance guidelines, which are posted on our website, www.cmcsa.com or www.cmcsk.com, and in accordance with applicable Nasdaq rules. In making its independence determinations, the Board considered the following relationships.

- Mr. Anstrom is an executive officer of Landmark Communications, Inc., which provides us with cable programming services. Under applicable Nasdaq rules and our corporate governance guidelines, Mr. Anstrom qualifies as independent since the amount of programming fees we pay for such services falls within Nasdaq prescribed limits. In each of 2000, 2001, 2002 and 2003, the amounts we paid to Landmark did not exceed five percent of the greater of Landmark's consolidated gross revenues for that year or \$200,000. The Board also determined that the Landmark business relationship is on customary arms-length terms and is not material to Comcast, and that Mr. Anstrom has no significant personal relationships with Comcast or any of our executive officers or other employees. Additional information regarding Mr. Anstrom's relationship with Comcast can be found under "Certain Transactions" on page 11 of this proxy statement.
- Mr. Bonovitz is the managing partner of Duane Morris LLP, a law firm that we had retained for legal services prior to 2003. Under applicable Nasdaq rules, Mr. Bonovitz qualifies as independent notwithstanding this past business relationship since the amount of fees we paid for such services fell within Nasdaq prescribed limits. However, the Board determined that Mr. Bonovitz does not meet the independence definition in our corporate governance guidelines because of his personal relationships with the Roberts family.

# THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" THE ELECTION OF EACH OF THE NOMINEES FOR DIRECTOR.

Set forth below is information about each of the nominees for director.

Ralph J. Roberts, 84, has served as a director and Chairman of the Executive and Finance Committee of the Board since November 2002. Prior to November 2002, Mr. Roberts served as a director and Chairman of the Board of our predecessor for more than five years. He is the father of Mr. Brian L. Roberts.

C. Michael Armstrong, 65, has served as a director since November 2002, Chairman of the Board from November 2002 to May 2003 and Non-Executive Chairman of the Board since May 2003. Since 2003, Mr. Armstrong has also been a visiting professor at the Massachusetts Institute of Technology. From 1997 until 2002, Mr. Armstrong served as Chairman and Chief Executive Officer of AT&T Corp. Mr. Armstrong serves on the Board of Trustees of Johns Hopkins University, Johns Hopkins Medicine and Carnegie Hall. He is a member of The President's Export Council, Counsel on Foreign Relations and Business Roundtable. Mr. Armstrong is also a director of Citigroup Inc. and HCA Inc.

Brian L. Roberts, 44, has served as a director and as our President and Chief Executive Officer since November 2002. Prior to November 2002, Mr. Roberts served as a director and President of our predecessor for more than five years. He is a son of Mr. Ralph J. Roberts. Mr. Roberts is also a director of Comcast Holdings Corporation, one of our wholly-owned subsidiaries, and The Bank of New York Company, Inc. Julian A. Brodsky, 70, has served as a director and as our Vice Chairman since November 2002. Prior to November 2002, he served as a director and Vice Chairman of our predecessor for more than five years. Mr. Brodsky is also Chairman of Comcast Interactive Capital, L.P., a venture fund that is consolidated in our financial statements. In addition, he is a director of RBB Fund, Inc. and Amdoes Ltd.

S. Decker Anstrom, 53, has served as a director since November 2002. Prior to November 2002, Mr. Anstrom served as a director of our predecessor since 2001. Mr. Anstrom was President and Chief Executive Officer of The Weather Channel from 1999 to 2001. In 2002, Mr. Anstrom became a director and President and Chief Operating Officer of Landmark Communications, Inc., a privately-held multimedia company, the assets of which include The Weather Channel. He is currently a director of the National Cable Television Association and the Cable TV Advertising Bureau.

Kenneth J. Bacon, 49, has served as a director since November 2002. Mr. Bacon has been Senior Vice President at Fannie Mae since 2000. From 1998 to 2000, Mr. Bacon served as Senior Vice President of Fannie Mae's Philadelphia regional office. Mr. Bacon is currently a director of the Fannie Mae Foundation and the National Equity Fund, a member of the Board of Trustees of Stanford University and the National Finance Committee Chairman for Communities in Schools. Mr. Bacon is a member of the Real Estate Roundtable, Executive Leadership Council and the Urban Land Institute.

Sheldon M. Bonovitz, 66, has served as a director since November 2002. Prior to November 2002, he served as a director of our predecessor for more than five years. Mr. Bonovitz has been a partner with the law firm of Duane Morris LLP for more than five years and is currently Chairman and Chief Executive Officer of that firm. Mr. Bonovitz is also a director of eResearch Technology, Inc. In addition, he is a trustee of the Dolfinger-McMahon Charitable Trust and the Christian R. and Mary F. Lindbach Foundation, and he serves on the Board of Trustees of The Curtis Institute of Music and the Philadelphia Museum of Art.

Joseph L. Castle, II, 71, has served as a director since February 2003. Mr. Castle had been a director of our predecessor for more than five years until November 2002. Mr. Castle has been a financial consultant for more than five years and is the Chairman and Chief Executive Officer and a director of Castle Energy Corporation, an independent oil and gas exploration and production company. Mr. Castle is also a director of Charming Shoppes, Inc. and Delta Petroleum Corporation. Since 2001, Mr. Castle has served as Chairman of the Board of Trustees of the Diet Drug Products Liability Settlement Trust.

J. Michael Cook, 61, has served as a director since November 2002. From 2001 until 2002, Mr. Cook served as a director of AT&T Corp. Prior to that, he served as Chairman and Chief Executive Officer of Deloitte & Touche LLP for more than five years. Mr. Cook is a director of International Flavors & Fragrances, Inc., Rockwell Automation International, The Dow Chemical Company and Northrop Grumman Corporation. Mr. Cook is also a trustee of the Fidelity Group of Mutual Funds, a member of the Advisory Board of the Securities Regulation Institute, Chairman Emeritus of the Board of Catalyst, Chairman of the Accountability Advisory Panel to the Comptroller General of the United States and a member of the Advisory Board of the Graduate School of the University of Florida.

Dr. Judith Rodin, 59, has served as a director since November 2002. Dr. Rodin has been President of the University of Pennsylvania, as well as a professor of psychology and of medicine and psychiatry at the University of Pennsylvania, for more than five years. She is currently a director of Electronic Data Systems Corporation, AMR Corporation, Aetna, Inc. and also serves as a trustee of 43 of the mutual funds managed by The BlackRock Funds.

Michael I. Sovern, 72, has served as a director since November 2002. Prior to November 2002, he served as a director of AT&T Corp. for more than five years. Mr. Sovern is Chairman of Sotheby's Holdings, Inc. He is President Emeritus and Chancellor Kent Professor of Law at Columbia University where he served as President for more than five years. He is President and a director of Shubert Foundation and a director of Shubert

Organization. He is currently a director of Sequa Corp. and Sotheby's Holdings, Inc. Mr. Sovern is also Chairman of the Japan Society and Chairman of the American Academy in Rome.

#### About the Board and its Committees

The Board	We are governed by a Board of Directors and various committees of the Board that meet throughout the year. During 2003, there were ten meetings of the Board and a total of 18 committee meetings. Each director attended more than 75% of the aggregate of all Board and committee meetings on which he or she served. Our independent directors have the opportunity to meet in an executive session following each regularly scheduled Board meeting. During 2003, our non-employee directors held two executive sessions in which only the non-employee directors participated. We encourage our directors to attend the annual meeting of shareholders. Each of our directors attended the 2003 annual meeting.
Committees of the Board	The Board has four principal committees. The following describes for each committee its current membership, the number of meetings held during 2003 and its mission.
Executive and Finance Committee	C. Michael Armstrong, Sheldon M. Bonovitz and Ralph J. Roberts (Chairman).
	This committee met two times in 2003. The Executive and Finance Committee acts for the directors in the intervals between Board meetings with respect to any matters delegated to it by the Board.
Audit Committee	S. Decker Anstrom, Kenneth J. Bacon, Joseph L. Castle, II, J. Michael Cook (Chairman), Dr. Judith Rodin and Michael I. Sovern. Each member of the committee is independent as defined under Nasdaq rules. A copy of this committee's charter is attached to this proxy statement as Appendix A and is also available on our website at www.cmcsa.com or www.cmcsk.com.
	This committee met seven times in 2003. The Audit Committee is responsible for the oversight and evaluation of:
	<ul> <li>the qualifications, independence and performance of our independent auditors;</li> </ul>
	• the performance of our internal audit function; and
	• the quality and integrity of our annual audited and quarterly financial statements and earnings press releases.
	The Audit Committee is also responsible for preparing the Audit Committee report required by the rules of the Securities and Exchange Commission, and the report is included in this proxy statement on page 12.
	The Board has concluded that at least three members of the Audit Committee qualify as audit committee financial experts. They are Kenneth J. Bacon, Joseph L. Castle, II and J. Michael Cook.

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> This committee met seven times in 2003. The Compensation Committee reviews and approves our compensation and benefit programs, ensures the competitiveness of these programs and oversees and sets compensation for our senior executives. The Compensation Committee is also responsible for preparing the Compensation Committee report required by the rules of the Securities and Exchange Commission, and the report is included in this proxy statement on page 49.

Governance and Directors Nominating Committee

S. Decker Anstrom, J. Michael Cook, Brian L. Roberts (Chairman) and Michael I. Sovern. Each member of the committee is independent as defined under Nasdaq rules with the exception of Mr. Roberts, our President and Chief Executive Officer. Mr. Roberts' membership on the committee is permitted by Nasdaq Rule 4350(c)(4)(E). If Proposal 4 of this proxy statement is approved at the meeting, Mr. Roberts will no longer be eligible to serve on the committee and will be replaced by an independent director. A copy of this committee's charter is currently available on our website at www.cmcsa.com or www.cmcsk.com.

This committee met two times in 2003. The Governance and Directors Nominating Committee exercises general oversight with respect to the governance of the Board as well as corporate governance matters involving us and our directors and executive officers. It also is responsible for periodically leading reviews and evaluations of the performance, size and responsibilities of the Board and its committees, and oversees succession planning for our senior management (including our Chief Executive Officer).

The Governance and Directors Nominating Committee also identifies and recommends director nominees. In assessing candidates, whether recommended by the committee or shareholders, the committee considers an individual's professional knowledge, business, financial and management expertise, industry knowledge and entrepreneurial background and experience. The committee also considers diversity, applicable independence requirements and the current composition of the Board.

The Governance and Directors Nominating Committee will consider director candidates nominated by shareholders. In order for a shareholder to make a nomination, the shareholder must provide a notice along with the additional information required by our by-laws in the following time periods. For election of directors at an annual meeting called for a date between April 26, 2005 and June 27, 2005, we must receive written notice on or after January 26, 2005 and on or before February 25, 2005. For election of directors at any other meeting, we must receive written notice by the close of business on the tenth day following the day we mailed notice of, or announced publicly, the date of the meeting, whichever occurs first. You can obtain a copy of the full text of the relevant by-law provision by writing to Arthur R. Block, Secretary, Comcast Corporation, at the address given on page 3 of this proxy statement. A copy of our by-laws has also been filed with the Securities and Exchange Commission as an exhibit to our Annual Report on Form 10-K filed on March 20, 2003.

#### **Director Compensation**

Directors who are Comcast employees do not receive any fees for their services as directors. Each nonemployee director receives an annual retainer of \$50,000 and \$2,000 for each Board meeting or other meeting attended in his or her capacity as director or for any other business conducted on our behalf, \$2,500 for each Audit or Compensation Committee meeting attended and \$1,000 for each meeting of any other committee attended. The chairs of the Audit and Compensation Committees receive an additional annual retainer of \$20,000 and \$10,000, respectively. Other members of the Audit and Compensation Committees receive an additional annual retainer of \$10,000 and \$5,000, respectively. The chairs of the other committees of the Board receive an additional annual retainer of \$5,000, and the members of these committees receive an additional annual retainer of \$2,500. Non-employee directors are reimbursed for travel expenses for meetings attended. Fees received by a director may be deferred in whole or in part.

Non-employee directors may elect to receive up to one-half of the Board annual retainer in shares of Class A Common Stock. In addition, each non-employee director is granted on or about November 20 of each year an option to purchase 7,500 shares of Class A Common Stock. These options become exercisable six months after the grant date and remain exercisable for ten years.

A description of our agreements with each of our employee directors can be found under "Agreements with Executive Officers."

#### **Certain Transactions**

Mr. Anstrom, one of our directors, is President and Chief Operating Officer of Landmark Communications, Inc., the parent company of The Weather Channel. In 2003, we paid \$19,736,883 in programming fees for carriage of The Weather Channel and Weatherscan Local under customary arms-length affiliation agreements. Bill Burke, a brother of Stephen B. Burke, one of our executive officers, is President of The Weather Channel. Neither Mr. Anstrom nor Messrs. Burke were directly involved in the negotiation of these agreements.

James Van Blarcom, a son-in-law of Mr. Castle, one of our directors, was formerly one of our employees. In 2003, he received \$78,364 in annual salary, bonus and commissions. He also participated in our employee benefit and equity incentive plans on the same basis as other similarly situated employees.

Debra G. Brodsky, a daughter of Mr. Brodsky, our Vice Chairman and one of our directors, is one of our employees. In 2003, she received \$129,960 in annual salary and bonus. She also participates in our employee benefit and equity incentive plans on the same basis as other similarly situated employees.

#### **PROPOSAL 2: RATIFICATION OF THE APPOINTMENT OF OUR INDEPENDENT AUDITORS**

The Audit Committee has appointed Deloitte & Touche LLP to serve as our independent auditors for the fiscal year ending December 31, 2004. We are asking you to ratify this appointment, although your ratification is not required. A representative of Deloitte & Touche LLP will be present at the meeting, will have the opportunity to make a statement and will be available to respond to appropriate questions.

#### THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" RATIFICATION OF THE APPOINTMENT OF DELOITTE & TOUCHE LLP AS OUR INDEPENDENT AUDITORS.

Set forth below are the fees paid or accrued for the services of Deloitte & Touche LLP, the member firms of Deloitte Touche Tohmatsu and their respective affiliates in 2003 and 2002.

	2003	2002
	(in mi	illions)
Audit fees	\$3.8	\$4.5
Audit-related fees	.7	.3
Tax fees	1.4	1.2
Other fees		
	\$5.9	\$6.0

Audit fees consist of services rendered to us and our subsidiaries for the audit of our annual financial statements, reviews of our quarterly financial statements and audit services provided in connection with other statutory or regulatory filings.

Audit-related fees consist almost entirely of employee benefit plan audits and attestation services related to contractual and regulatory compliance.

Tax fees consist of domestic and foreign tax compliance services, including tax examination assistance, expatriate administration and tax preparation; and state and local tax planning and advice. In 2003 and 2002, tax fees included \$264,000 and \$93,000, respectively, for state and local tax planning and advice.

Other fees consist of permissible non-audit services, if any.

#### Pre-Approval Policy of Audit Committee of Services Performed by Independent Auditors

During 2003, the Audit Committee updated its policy to require that the committee pre-approve audit and non-audit services performed by the independent auditors to assure that the services do not impair the auditors' independence. Unless a type of service has received general pre-approval, it requires separate pre-approval by the Audit Committee. Even if a service has received general pre-approval, if the fee associated with the service exceeds \$250,000 in a single engagement or series of related engagements, or relates to tax planning and advice, it requires separate pre-approval. The Audit Committee has delegated its pre-approval authority to its Chairman acting with one additional member.

#### **Report of the Audit Committee**

The Audit Committee is composed entirely of independent directors meeting the requirements of applicable Securities and Exchange Commission and Nasdaq rules. The key responsibilities of our committee are set forth in our charter, which was adopted by us and approved by the Board and is attached to this proxy statement as Appendix A. We serve in an oversight capacity and are not intended to be part of Comcast's operational or managerial decision-making process. Comcast's management is responsible for preparing the consolidated financial statements, and its independent auditors are responsible for auditing those statements. Our principal purpose is to monitor these processes.

In this context, we met and held discussions with management and the independent auditors. Management represented to us that Comcast's consolidated financial statements were prepared in accordance with generally accepted accounting principles applied on a consistent basis, and we have reviewed and discussed the quarterly and annual earnings press releases and consolidated financial statements with management and the independent auditors. We also discussed with the independent auditors matters required to be discussed by Statement on Auditing Standards No. 61 (Communication With Audit Committees), as amended.

We discussed with the independent auditors the auditors' independence from Comcast and its management, including the matters, if any, in the written disclosures required by Independence Standards Board Standard No. 1 (Independence Discussions With Audit Committees). We also considered whether the independent auditors' provision of audit and non-audit services to Comcast is compatible with maintaining the auditors' independence.

We discussed with Comcast's internal and independent auditors the overall scope and plans for their respective audits. We met with the internal and independent auditors, with and without management present, to discuss the results of their examinations, the evaluations of Comcast's internal controls, disclosure controls and procedures and the overall quality and integrity of Comcast's financial reporting.

Based on the reviews and discussions referred to above, we have recommended to the Board, and the Board has approved, that the audited financial statements be included in Comcast's Annual Report on Form 10-K for the year ended December 31, 2003, for filing with the Securities and Exchange Commission.

We have appointed Deloitte & Touche LLP as Comcast's independent auditors for 2004.

#### **Members of the Audit Committee**

J. Michael Cook (Chair) S. Decker Anstrom Kenneth J. Bacon Joseph L. Castle, II Dr. Judith Rodin Michael I. Sovern

#### **PROPOSAL 3: APPROVAL OF THE 2002 RESTRICTED STOCK PLAN**

Our 2002 Restricted Stock Plan was ratified by the Board on November 20, 2002 and approved by shareholders on May 7, 2003. On February 24, 2004, for the reasons discussed below, the Compensation Committee approved an amendment to the 2002 Restricted Stock Plan to broaden the class of employees eligible to participate in the plan and to increase the number of shares available for issuance under the plan from 10,750.000 shares to 15,000,000 shares, as well as to include a broad range of possible performance targets and an individual award limit.

The Board and the Compensation Committee believe that a combination of stock options and restricted stock is a more effective way to retain, reward and motivate selected employees and to align their interests with the interests of our shareholders on a long-term basis. Historically, our employees have generally only been granted stock options as long-term equity compensation. Beginning in 2004, however, we have decided to grant those employees eligible for long-term equity incentive awards both stock options and awards of restricted stock. With respect to 2004, the Compensation Committee has approved granting a mix of equity awards consisting of approximately 75% stock options and 25% restricted stock, by value. As a result of this decision, the 2002 Restricted Stock Plan was amended to both expand the definition of eligible employee to include any of our employees and employees of our participating subsidiaries as well as to increase the number of available shares under the plan. In accordance with applicable Nasdaq rules, the Board is asking shareholders to approve the plan as so amended and restated.

In addition, we are amending the plan to include a range of performance targets that our Compensation Committee may use in connection with the grant of awards under this plan, as well as to establish a 1,000,000 share limit on the maximum number of shares that may be awarded to any individual in any calendar year. By making these amendments, any shares delivered pursuant to awards tied to objective, quantitative targets will be eligible to be treated as qualified performance-based compensation and will be deductible by us for federal income tax purposes.

If the plan is not approved, we will limit participation in the plan to only those management employees currently eligible to participate and will not be able to make the proposed additional 4,250,000 shares available for issuance under this plan, but the plan will otherwise remain in effect. In addition, we may not be able to treat as a deductible expense for federal income tax purposes grants of awards under the plan to certain of our executive officers, notwithstanding that they may be subject to the satisfaction of quantitative performance standards or to the individual limit.

#### **Description of the 2002 Restricted Stock Plan**

The following is a summary of the material features of this plan. The following summary does not purport to be complete and is qualified in its entirety by reference to the terms of the 2002 Restricted Stock Plan, which is attached to this proxy statement as Appendix B.

Types of Awards; Eligibility. Awards of restricted stock and restricted stock units may be granted under the plan. Awards of restricted stock are shares of common stock which are awarded subject to restrictions on transfer and a substantial risk of forfeiture. Awards of restricted stock units are units valued by reference to shares of common stock that entitle a participant to receive, upon the settlement of the unit, one share for each unit. Our employees and employees of our participating subsidiaries may receive awards under the plan. The number of employees currently eligible to participate in the plan is approximately 8,000.

Shares Subject to the Plan. The aggregate maximum number of shares that may be issued pursuant to awards under the plan is 15,000,000 shares of Class A Common Stock, or, with respect to awards granted before our acquisition of AT&T Corp.'s broadband business as to which restrictions upon shares have not lapsed, Class A Special Common Stock. As of December 31, 2003, of this aggregate amount, 196,853 shares of Class A Common Stock and 6,727,874 shares of Class A Special Common Stock had been issued or reserved for issuance

upon vesting of outstanding awards. Shares issued under the restricted stock plan may be either treasury shares or shares originally issued for this purpose. Rights to receive shares forfeited pursuant to the terms of an award will be available again for grant under the plan. No individual may be awarded more than 1,000,000 restricted shares or restricted stock units in any calendar year. As of March 15, 2004, the fair market value of a share of Class A Common Stock and Class A Special Common Stock was \$28.98 and \$27.99, respectively.

Term of the Plan. No awards may be granted under the restricted stock plan after February 26, 2013.

Administration. The plan is administered by the Compensation Committee. This committee has authority to determine who is eligible to participate in the plan, to select individuals to whom awards will be granted, to interpret the plan and to prescribe and amend rules and regulations relating to the plan. The committee may delegate to one of our officers or a committee of two or more of our officers its discretion under the plan to make grants of awards to any eligible employee other than an individual who, at the time of grant, has a base salary of \$500,000 or more, holds a position with Comcast of Senior Vice President or higher or is subject to the short-swing profit recapture rules of the Securities Exchange Act of 1934.

*Terms of Awards.* The committee determines the terms and conditions of each award, including the restrictions applicable to shares underlying awards of restricted stock and the dates these restrictions lapse and the award vests, as well as the vesting and settlement terms applicable to restricted stock units. When an award vests, we will deliver to the recipient a certificate for the number of shares without any legend or restrictions (except as necessary to comply with applicable state and federal securities laws).

The committee may condition the vesting of, or lapse of restrictions with respect to, any award of restricted shares or restricted stock units upon the satisfaction of performance targets or goals as described below. The committee is authorized to establish company-wide, division-wide or individual goals, which may be quantitative performance standards or qualitative performance standards. The quantitative performance standards include financial measurements such as income, expense, operating cash flow, numbers of customers of or subscribers for various services and products offered by us or one of our divisions, customer service measurements and other objective financial or service-based standards relevant to our business as may be established by the committee. The qualitative performance standards may include, but are not limited to, customer satisfaction, management effectiveness, workforce diversity and other qualitative performance standards relevant to our business. For each calendar year, annual performance goals will be established by the committee by no later than the 90<sup>th</sup> day of the year. Performance period. After the close of the calendar year, the committee will also determine whether the performance goals have been satisfied.

In addition, the committee may condition the vesting of, or lapse of restrictions with respect to, an award based on the satisfaction of performance standards as it may determine to be appropriate, whether or not previously designated as a performance standard.

*Termination of Employment.* Upon termination of employment, all awards which are then still subject to restrictions or which have not vested will be forfeited. With respect to any award, the committee may, in its sole discretion, waive restrictions or vesting conditions in whole or in part.

*Deferral.* Each recipient of an award has the right to defer the receipt, subject to re-deferral, of any or all of the shares subject to an award under the terms and conditions as determined by the committee and the plan. Upon making an appropriate election, a portion of the deferred awards may be paid out in cash.

Withholding. Unless otherwise determined by the committee, tax liabilities incurred in connection with the grant of an award or its vesting or lapse of restrictions or settlement will be satisfied by our withholding a portion of the shares subject to the award that have a fair market value approximately equal to the minimum amount of taxes required to be withheld by us under applicable law. Subject to certain conditions specified in the plan, a recipient of an award may elect to have taxes withheld in excess of the minimum amount required to be withheld or may satisfy his or her tax withholding in cash.

Adjustments. The aggregate number of shares under the plan, the class of shares as to which awards may be granted and the number of shares covered by each outstanding award are subject to adjustment in the event of a stock dividend, recapitalization or certain other corporate transactions. The committee's determination with respect to any adjustment is final and conclusive.

Terminating Events. In the event of our liquidation or a transaction or series of transactions in which an unaffiliated third party acquires share ownership such that this person has the ability to direct the management of the company, as determined by the Board in its sole discretion, the committee may provide that upon consummation of such an event, any outstanding awards will vest in full or in part or that all restricted stock or restricted stock units which have been previously deferred be transferred to the recipient.

Amendment or Termination. The plan may be amended by the Board or the committee and may be terminated by the Board at any time. No award will be affected by any amendment or termination without the written consent of the recipient of the award.

New Plan Benefits. Future grants of awards of restricted stock, if any, that will be made to eligible employees with respect to those shares that are subject to shareholder approval are subject to the discretion of the committee and, therefore, are not determinable at this time. The following table reflects the number of awards granted in 2003.

#### 2002 Restricted Stock Plan

Name and Position	Number of Shares
Brian L. Roberts	0
President and Chief Executive Officer	
Stephen B. Burke	0
Executive Vice President; President, Comcast Cable	
Ralph J. Roberts	0
Chairman of the Executive and Finance Committee of the Board of Directors	
Lawrence S. Smith	0
Co-Chief Financial Officer; Executive Vice President	
David L. Cohen	0
Executive Vice President	
John R. Alchin	0
Co-Chief Financial Officer; Executive Vice President and Treasurer	
C. Michael Armstrong	0
Non-Executive Chairman of the Board of Directors	
All executive officers as a group	0
All non-employee directors as a group	0
Company employees other than executive officers, as a group	196,853

#### **Federal Income Taxation**

The following discussion is a summary of the material U.S. federal income tax consequences of restricted stock and restricted stock units granted under the plan.

*Restricted Stock.* Generally, the grant of an award of restricted stock is not a taxable event. The recipient of the award will recognize ordinary compensation income in each year in which restrictions on the award lapse and the award vests, in an amount equal to the fair market value of the shares of common stock received. A recipient's basis for determining gain or loss on a subsequent disposition of these shares of common stock will be the amount the recipient must include in income when the restrictions lapse. Any gain or loss recognized on a

disposition of the shares of common stock generally will be short-term or long-term capital gain or loss depending on the length of time the recipient holds the shares.

Restricted Stock Units. Generally, the grant of an award of restricted stock units is not a taxable event. The recipient of the award will recognize ordinary compensation income in each year in which the units are settled, in an amount equal to the fair market value of the shares of common stock received. A recipient's basis for determining gain or loss on a subsequent disposition of these shares of common stock will be the amount the recipient must include in income when the units vest and are settled. Any gain or loss recognized on a disposition of the shares of common stock generally will be short-term or long-term capital gain or loss depending on the length of time the recipient holds the shares.

A recipient who makes a proper election to defer the receipt of shares received in settlement of an award of restricted stock or to defer the settlement of restricted stock units will not recognize income with respect to the shares or units until the end of the deferral period. At the end of the deferral period, the recipient will recognize ordinary compensation income equal to the fair market value of the shares of common stock issued at that time.

Section 83(b) Election. If a recipient of an award of restricted stock properly makes an election pursuant to Section 83(b) of the Internal Revenue Code of 1986, he or she will recognize ordinary compensation income equal to the fair market value of the shares of common stock at the time the shares are awarded, without taking into account the effect of the restrictions on the award. The recipient's basis for determining gain or loss on a subsequent disposition of shares will be the amount the recipient so included in income. Any gain or loss recognized on a disposition of shares of common stock which were subject to the Section 83(b) election will be short-term or long-term capital gain or loss, depending on the length of time since the date of the award. If, however, the recipient forfeits an award upon a termination of employment prior to the time the restrictions lapse, he or she will generally not be entitled to deduct any loss upon such forfeiture even though the recipient may have been required to include an amount in income by virtue of the Section 83(b) election.

Subject to Section 162(m) of the Internal Revenue Code of 1986 and our satisfaction of applicable reporting requirements, at the time income is recognized by the recipient of an award of restricted stock or restricted stock units, we will be entitled to a corresponding deduction.

#### THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" APPROVAL OF THE 2002 RESTRICTED STOCK PLAN.

#### **PROPOSAL 4: APPROVAL OF AN AMENDMENT TO OUR ARTICLES OF INCORPORATION**

The Board has unanimously approved an amendment to our Articles of Incorporation and recommends that shareholders approve this amendment. Many of the governance-related provisions in our current Articles of Incorporation were adopted in 2002 in connection with our acquisition of AT&T Corp.'s broadband business. The governance structure then adopted by shareholders was intended to provide us with a stable governance structure during our integration of AT&T Corp.'s broadband business and our transition from a majority-controlled corporation to a corporation with a larger, more diverse shareholder base. After a review of our current corporate governance, the Board has concluded that it is appropriate at this time to make certain changes to our Articles of Incorporation. As described in greater detail below, among other things, the proposed amendment would allow the Board to determine the composition of the Governance and Directors Nominating Committee and to select its chairman and would give the Board approval rights over director nominees recommended by the Governance and Directors Nominating Committee. A copy of the proposed amendment is attached to this proxy statement as Appendix C. The summary of the material terms of this amendment that follows is qualified in its entirety by reference to Appendix C.

#### Description of the Material Terms of the Amendment to Our Articles of Incorporation

If the proposed amendment is approved by shareholders, the Governance and Directors Nominating Committee will at all times be composed solely of independent directors, as required by Nasdaq rules, who are designated by the Board. The committee would no longer include Mr. Brian L. Roberts, who is currently its chairman. Our Articles of Incorporation currently provide that between the 2004 and the 2005 annual meetings, if Mr. Roberts is our Chairman or Chief Executive Officer, the Governance and Directors Nominating Committee will consist of (i) Mr. Roberts, (ii) an independent director selected by and from members of the Board who were directors of Comcast prior to its acquisition of AT&T Corp.'s broadband business or their successors as directors ("Comcast directors") and (iii) three independent directors selected by Comcast directors from members of the Board who are not Comcast directors. Our Articles of Incorporation also currently provide that during the same period, if Mr. Roberts is not our Chairman or Chief Executive Officer, the Governance and Directors Nominating Committee will consist of (i) two Comcast directors at least one of whom is independent and (ii) three independent directors selected by Comcast directors from members of the Board who are not Comcast directors. After the 2005 annual meeting, our Articles of Incorporation currently require that if Mr. Roberts is our Chairman or Chief Executive Officer, the Governance and Directors Nominating Committee include (i) Mr. Roberts and (ii) four independent directors selected by Mr. Roberts, provided that Mr. Roberts can designate no more than one Comcast director to the committee prior to the seventh anniversary of the date such director was initially elected to the Board. After the 2005 annual meeting, our Articles of Incorporation also currently require that if Mr. Roberts is not our Chairman or Chief Executive Officer, the Board will determine the composition of the Governance and Directors Nominating Committee. Our Articles of Incorporation currently further provide that Mr. Roberts serve as the chairman of the Governance and Directors Nominating Committee at all times that he is a member of the committee. The proposed amendment will eliminate all of these restrictions on the composition of the Governance and Directors Nominating Committee, thereby providing the Board with the flexibility to designate any independent director to serve on the Governance and Directors Nominating Committee and to chair the committee.

If the proposed amendment is approved by shareholders, nominees recommended by the Governance and Directors Nominating Committee for election by shareholders as directors will be submitted to the Board for its approval prior to their submission for election by shareholders. Our Articles of Incorporation currently provide that all powers to nominate individuals for election by shareholders as directors that would otherwise be held by the Board reside exclusively with the Governance and Directors Nominating Committee and that the committee's nominees be submitted directly to shareholders. The proposed amendment will eliminate this nomination process.

# Reasons the Board Approved and Recommends Approval by Shareholders of the Amendment to Our Articles of Incorporation

The Board recommends that shareholders approve the amendment to our Articles of Incorporation because it believes that the amendment would benefit our corporate governance. After a review of our current corporate governance, the Board together with Mr. Roberts has concluded that the company would be better served if the Board has the flexibility to select members of the Governance and Directors Nominating Committee. If the amendment is approved, the committee will no longer consist of a specified number of Comcast directors and non-Comcast directors. Instead, the Board will be permitted to designate any independent director to the Governance and Directors Nominating Committee. Even though Mr. Roberts' current membership on the Governance and Directors Nominating Committee is expressly permitted by Nasdaq Rule 4350(c)(4)(E), if the amendment is approved, Mr. Roberts will no longer be eligible to serve on the Governance and Directors Nominating Committee will consist solely of independent directors as required by Nasdaq rules. In addition, the Board recommends the proposed amendment because it believes that it is appropriate at this time to return to the Board ultimate authority to nominate individuals for election by shareholders as directors. If the amendment is approved, the Governance and Directors Nominating Committee will no longer be able to submit their nominee recommendations to shareholders. Instead, the committee's recommendations will be reviewed by the Board, which will decide on the final director candidates.

#### THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" APPROVAL OF THE AMENDMENT TO OUR ARTICLES OF INCORPORATION.

#### SHAREHOLDER PROPOSALS

We received the following shareholder proposals. The proponent of each proposal has represented to us that the proponent has continuously held at least \$2,000 in market value of Class A Common Stock for at least one year and will continue to hold these securities through the date of the annual meeting.

For each of the shareholder proposals, we have included the proposal and shareholder's supporting statement exactly as we received them, although we have provided brief titles for the proposals and have indicated with "[sic]" places where the text as written appears garbled. Following each proposal, we explain why our Board recommends a vote AGAINST the proposal. Mr. Brian L. Roberts, as beneficial owner of all the outstanding shares of Class B Common Stock, has indicated that he intends to vote all of these shares against each of the five shareholder proposals.

#### PROPOSAL 5: TO HAVE INDEPENDENT DIRECTORS CONSTITUTE TWO-THIRDS OF THE BOARD

The following proposal and supporting statement were submitted by the AFL-CIO Reserve Fund, 815 Sixteenth Street. N.W., Washington, D.C. 20006, which has advised us that it holds 711 shares of our common stock.

**RESOLVED:** Shareholders of the Comcast Corporation ("Comcast" or the "Company") urge the Board of Directors (the "Board") to adopt a policy of nominating independent directors who, if elected by the shareholders, would constitute two-thirds of the Board. For purposes of this proposal, the term "Independent Director" shall mean a director who:

- has not been employed by the Company in an executive capacity;
- is not, and is not affiliated with a company that is, an advisor or consultant to the Company, or a significant customer or supplier of the Company;
- has no personal service contract(s) with the Company or the Company's senior management;
- is not affiliated with a not-for-profit entity that receives significant contributions from the Company;
- within the last five years, has not had any business relationship with the Company that the Company has been required to disclose under the Securities and Exchange Commission disclosure regulations;
- is not employed by a public company at which an executive officer of the Company serves as a director;
- has not had a relationship described in [sic] of the sort described above with any affiliate of the Company; and
- is not a member of the family of any person described above.

**SUPPORTING STATEMENT:** This proposal seeks to establish a level of independence that we believe will promote clear and objective decision-making in the best interest of all shareholders. The above resolution is based on a definition of director independence that was developed by the Council of Institutional Investors, an organization of more than 130 pension funds with over \$2 trillion in assets. The Council of Institutional Investors believes that "an independent director is someone whose only nontrivial professional, familial or financial connection to the corporation, its chairman, CEO or any other executive officer is his or her directorship."

In our opinion, fewer than half of the Company's directors meet the proposed standard of independence. Four of Comcast's twelve directors (two of whom are related) are current or former executives of the Company or its predecessors; a fifth heads a law firm that recently provided legal services to the Company; a sixth is an executive of a company that provides programming to Comcast; and a seventh is the former CEO of the Company's auditor. We are also concerned that Comcast CEO Brian Roberts has served as the Chair of the Board's Governance and Directors Nominating Committee.

Leading business organizations such as the National Association of Corporate Directors' Blue Ribbon Commission on Director Professionalism have supported requiring a substantial majority of independent directors. According to the Business Roundtable's Principles of Corporate Governance, "a substantial majority of directors of the board of a publicly owned corporation should be independent of management." The Conference Board's Commission on Public Trust and Private Enterprise states: "Boards must be composed of qualified individuals, a substantial majority of whom are free from disqualifying conflicts of interest."

For these reasons, please vote FOR this proposal.

# Our Comments Regarding the Proposal to Establish a Two-thirds Independent Board

Proposal 5 would add two additional restrictions to the board independence requirements prescribed by Nasdaq. First, the proponent seeks to increase the required minimum percentage of independent directors from a majority to two-thirds. Second, the proponent seeks to use a different definition of independence.

Minimum Independence Requirement. The two-thirds minimum independent board requirement proposed by the proponent differs from the standards determined appropriate by Nasdaq and the New York Stock Exchange and approved by the Securities and Exchange Commission. The standards for board independence adopted and approved by these regulatory bodies provide that a majority of the board must be independent. In adopting our corporate governance guidelines, our Board also determined that a majority requirement for independent directors is the appropriate standard and is in the best interest of the company and our shareholders. The Board sees no reason for the company to adopt a different standard from that promulgated by its regulators and, for the reasons described below, believes that Proposal 5's heightened minimum standard for board independence is not in the best interest of the company and our shareholders.

The requirement to maintain a two-thirds independent board at all times could be problematic due to the normal course of retirements and resignations of directors. Whenever a director leaves our Board, adequate time is needed to identify and evaluate suitable candidates to fill the open directorship. Any directorship left unfilled changes the balance of independent and non-independent directors. If the minimum standard for independent directors is set at two-thirds, the percentage of independent directors may more frequently fall below the minimum standard as directors retire or resign. In order to comply with the two-thirds quota proposed by Proposal 5, the Board may then be forced either to fill the open directorship quickly without adequate time to select the best candidate or to initiate needless resignations and reappointments of existing non-independent directors once a suitable independent candidate is selected to fill the open directorship.

The Board also believes that shareholders should not overlook the critical role served by our directors who are not independent under relevant standards due to their role as current or former executives of the company, their position with a customer, business partner or advisor or other relevant background or experience with the company. These individuals are uniquely situated to provide insight into our company's significant opportunities and risks, our competitive strengths and weaknesses and the challenges facing the business as a whole and play a critical role in the Board's deliberations and decision-making. While independent judgment in the boardroom is essential, the Board believes that a majority independent board combined with independent key committees, regular executive sessions of independent directors and other safeguards against conflicts of interest provides the optimum mix of talent, experience and independent judgment and promotes clear and objective decision-making in the best interest of all shareholders.

Independence Definition. Proposal 5's definition of independence differs from the definition we are subject to as a Nasdaq-traded company. Proposal 5's definition is more stringent in that it precludes an individual from being an independent director if the person had certain relationships with the company, such as being affiliated with an advisor or consultant to the company, no matter how long ago the relationship ended. In contrast, the Nasdaq rules provide that certain former relationships with the company do not preclude a person from being an independent director if the relationship ended more than three years ago. The Board believes that Proposal 5's lack of a look-back period on certain former relationships would needlessly exclude highly qualified individuals from serving on our Board.

The definition of independence in Proposal 5 consists of a list of relationships that preclude a finding of independence. The Nasdaq definition similarly lists certain relationships that preclude such a finding. However, Nasdaq not only precludes individuals who have or have had certain relationships from being independent but also provides that the Board must affirmatively determine whether *any* relationship exists that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Although it is not

possible to anticipate or explicitly provide for all relationships that might signal a conflict of interest or bear on the materiality of a director's independence, the Board believes that the Nasdaq requirement to review all facts and circumstances that could bear on a finding of independence assures a thorough and thoughtful process for determining the independence of our directors and that the more extensive list of precluded relationships proposed by the proponent is unnecessary.

Accordingly, while the Board agrees with the proponent's stated goal of establishing a level of independence that promotes clear and objective decision-making, the Board believes that our current independence standards and definition of independence are the most appropriate for the company and are in the best interest of our shareholders.

# FOR THESE REASONS, THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "AGAINST" THIS PROPOSAL.

## **PROPOSAL 6: TO DISCLOSE POLITICAL CONTRIBUTIONS**

The following proposal and supporting statement were submitted by Mrs. Evelyn Y. Davis, Watergate Office Building, 2600 Virginia Avenue, N.W., Suite 215, Washington, D.C. 20037, who has advised us that she holds 160 shares of our common stock.

**RESOLVED:** That the stockholders recommend that the Board direct management that within five days after approval by the shareholders of this proposal, the management shall publish in newspapers of general circulation in the cities of New York, Washington, D.C., Detroit, Chicago, San Francisco, Los Angeles, Dallas, Houston and Miami, and in the Wall Street Journal and U.S.A. Today, a detailed statement of each contribution made by the Company, either directly or indirectly, within the immediately preceding fiscal year, in respect of a political campaign, political party, referendum or citizens' initiative, or attempts to influence legislation, specifying the date and amount of each such contribution, and the person or organization to whom the contribution was made. Subsequent to this initial disclosure, the management shall cause like data to be included in each succeeding report to shareholders. And if no such disbursements were made, to have that fact publicized in the same manner.

**REASONS:** This proposal, if adopted, would require the management to advise the shareholders how many corporate dollars are being spent for political purposes and to specify what political causes the management seeks to promote with those funds. It is therefore no more than a requirement that the shareholders be given a more detailed accounting of these special purpose expenditures that [sic] they now receive. These political contributions are made with dollars that belong to the shareholders as a group and they are entitled to know how they are being spent.

If you AGREE, please mark your proxy FOR this resolution.

# Our Comments Regarding the Proposal to Disclose Political Contributions

Proponent's stated reason for presenting Proposal 6 is to provide disclosure of "corporate dollars" being spent for political purposes out of concern that political contributions may be made with "dollars that belong to shareholders as a group". In fact, federal law prohibits all corporations from making direct or indirect contributions to candidates or political parties at the federal level, and many states' laws regulate and limit such activities at the state level. Although we sponsor political action committees, as permitted by law, that make contributions to political candidates, parties and public officials whose views are consistent with our long-term legislative and regulatory goals relating to our industry or the communities we serve, these committees are funded solely from voluntary contributions made by our employees and others. Accordingly, corporate dollars spent for this purpose are, at both the federal and state level, generally limited to the costs associated with administering these committees. In addition, although in a limited number of states we may from time to time make direct political contributions to candidates for state or local office, the aggregate amount of our direct corporate contributions is insignificant.

The proponent seeks information concerning dollars being spent for political purposes for the purpose of accounting for corporate political expenditures. Specifically, the proposal calls for a detailed accounting of each contribution, including the date of the contribution, the amount of the contribution and the recipient of the contribution. As described above, we sponsor political action committees and may make direct contributions in a limited number of states to state or local office candidates. All contributions made by our committees are disclosed periodically in reports with the Federal Election Commission and applicable state authorities. In addition, with respect to any direct contributions to be reported once a threshold amount is reached and require similar reporting on the part of the candidates who received such contributions. Reports filed with the Federal Election Commission and state authorities generally contain all the information called for by Proposal 6, including the

date of the contribution, the amount of the contribution and the recipient of the contribution. These reports are typically available to the public, and many of these reports are available free of charge over the Internet. For example, all reports filed with the Federal Election Commission are available at www.fec.gov, and resources such as www.fecinfo.com and www.opensecrets.org compile federal and state political contribution data in a searchable format. Accordingly, shareholders who are interested in reviewing our corporate political expenditures and the expenditures of our political action committees already have access to this information.

The Board believes that Proposal 6 is unnecessary because the amount of corporate dollars spent on political contributions is insignificant and shareholders have access to information of the sort called for by Proposal 6.

# FOR THESE REASONS, THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "AGAINST" THIS PROPOSAL.

# PROPOSAL 7: TO NOMINATE TWO DIRECTORS FOR EVERY OPEN DIRECTORSHIP

The following proposal and supporting statement were submitted by Mr. Richard A. Dee, 115 East 89<sup>th</sup> Street, New York, NY 10128, who has advised us that he holds 88 shares of our common stock.

"Stockholders of publicly-owned corporations do not 'elect' directors. Directors are 'selected' by incumbent directors and managements. Stockholders are allowed only to 'ratify' director selections much as they ratify auditor selections.

"The term 'Election of Directors' is misused in corporate proxy materials to refer to the process by which directors are empowered. The term is inappropriate—and it is misleading. <u>Without a choice of candidates</u>, there is no election.

"Incumbent directors are anxious to protect their absolute power over corporate activities. The root of that power is control of Corporate Governance—which is assured by control of board composition. Unfortunately, the 'Elective process rights' of stockholders are being ignored.

"It is hereby requested that the Board of Directors adopt promptly a resolution requiring the Governance and Directors Nominating Committee to nominate two candidates for each directorship to be filled by voting of stockholders at annual meetings. In addition to customary personal background information, Proxy Statements shall include a statement by each candidate as to why he or she believes they should be elected.

"Approval of this Corporate Governance proposal should result in Comcast stockholders being provided with a choice of director candidates for whom to vote—and an opportunity to vote in a **true** election for those whose qualifications and views they favor. Comcast stockholders deserve to be represented by directors who are 'duly elected.'

"In a democracy, those who govern are duly-elected by those whom they represent—and they are held accountable by those electors. Continuing in public office requires satisfying constituents, not just nominators. Corporate directors, far too many of whom divide their time between several masters, take office unopposed —and answer only to fellow directors.

"Until stockholders make unmistakably clear that they are unwilling to continue as disenfranchised corporate owners, they will continue to be denied genuine participation in deciding who will direct the companies that they own. It is now virtually impossible for stockholders to utilize successfully their supposed right to nominate and elect directors. Approval of this proposal will be a step toward Corporate Democracy. A step—and a thought—that Corporate America finds very disturbing!

"The 'pool' from which corporate directors are selected should be expanded from the current preponderance of chairmen/CEOs and presidents to include younger executives, including many more women, whose backgrounds particularly well-qualify them to represent the stockholders of particular companies.

"Although director nominees would continue to be selected by incumbents, approval of this proposal should enable Comcast stockholders to replace any or all directors if they become dissatisfied with them—or with the results of corporate policies and/or performance. Not a happy prospect even for those able to nominate their possible successors!

"The benefits that will accrue to Comcast stockholders from Directors that have been democratically —elected, and who are willing to have their respective qualifications reviewed and considered carefully by stockholders, far outweigh arguments raised by those who are accustomed to being "selected"—and who are determined to maintain their absolute power over the Corporate Governance process.

"Please vote FOR this proposal."

# Our Comments Regarding the Proposal to Nominate Two Directors for Every Open Directorship

The Board believes in the importance of a sound process for the nomination of directors. The Board's Governance and Directors Nominating Committee is responsible for identifying and recommending director nominees, and three-fourths of the members of this committee are currently independent under Nasdaq rules. If Proposal 4 of this proxy statement is approved at the meeting, Mr. Brian L. Roberts will no longer be eligible to serve on the Governance and Directors Nominating Committee, and all members of this committee will be independent under Nasdaq rules. Subject to the governance provisions contained in our Articles of Incorporation, this committee considers all proposed nominees for director, including sitting directors and nominees for which a shareholder has submitted a written recommendation. Any of our shareholders may submit a written recommendation to our Secretary for consideration by the committee. In addition, any shareholder who complies with the advance notice provisions of our by-laws described elsewhere in this proxy statement may nominate a director at the annual meeting of shareholders. Also, any shareholder may vote for some directors and withhold votes from others. Finally, a shareholder may propose an alternate slate of directors if the shareholder complies with the rules of the Securities and Exchange Commission relating to election contests.

Proposal 7 would require the Governance and Directors Nominating Committee to nominate two candidates for each directorship and to include a statement by each as to why he or she should be elected. The Board believes that these proposed procedures would politicize the director election process and are inappropriate for a business organization. The current procedures reflect the Board's responsibilities for its own self-evaluation in terms of size, composition and performance and for recommending candidates to shareholders. The Board weighs re-nomination of incumbent directors and candidates for vacancies or new Board positions against its desired composition and in the light of developments in our industry and in our business.

In the absence of special circumstances, changes to Board membership should be incremental so that there is a balance between new and experienced directors. The Board believes that the nomination of two candidates for each Board vacancy would be inconsistent with this objective and would discourage qualified candidates from standing for election.

# FOR THESE REASONS, THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "AGAINST" THIS PROPOSAL.

# **PROPOSAL 8: TO LIMIT COMPENSATION FOR SENIOR EXECUTIVES**

The following proposal and supporting statement were submitted by the United Brotherhood of Carpenters Pension Fund, 101 Constitution Avenue, N.W., Washington, D.C. 20001, which has advised us that it holds 37,900 shares of our common stock.

### **Commonsense Executive Compensation Proposal**

**Resolved:** that the shareholders of Comcast Corporation ("Company") request that the Company's Board of Directors and its Executive Compensation Committee replace the current system of compensation for senior executives with the following "Commonsense Executive Compensation" program including the following features:

(1) Salary The chief executive officer's salary should be targeted at the mean of salaries paid at peer group companies, not to exceed \$1,000,000 annually. No senior executive should be paid more than the CEO.

(2) Annual Bonus The annual bonus paid to senior executives should be based on well-defined quantitative (financial) and qualitative (non-financial) performance measures. The maximum level of annual bonus should be a percentage of the executive's salary level, capped at 100% of salary.

(3) Long-Term Equity Compensation Long-term equity compensation to senior executives should be in the form of restricted shares, not stock options. The restricted share program should utilize justifiable performance criteria and challenging performance benchmarks. It should contain a vesting requirement of at least three years. Executives should be required to hold all shares awarded under the program for the duration of their employment. The value of the restricted share grant should not exceed \$1,000,000 on the date of grant.

(4) Severance The maximum severance payment to a senior executive should be no more than one year's salary and bonus.

(5) Disclosure Key components of the executive compensation plan should be outlined in the Compensation Committee's report to shareholders, with variances from the Commonsense program explained in detail.

The Commonsense compensation program should be implemented in a manner that does not violate any existing employment agreement or equity compensation plans.

**Supporting Statement:** We believe that compensation paid to senior executives at most companies, including ours, is excessive, unjustified, and contrary to the interests of the Company, its shareholders, and other important corporate constituents. CEO pay has been described as a "wasteland that has not been reformed." (Institutional Shareholder Services senior vice-president, *Wall Street Journal*, "Executive Pay Keeps Rising, Despite Outcry," October 3, 2003). As of 2002, the CEO-worker pay gap of 282-to-1 was nearly seven times as large as the 1982 ratio of 42-to-1 according to the United for a Fair Economy's Tenth Annual CEO Compensation Survey ("Executive Excess 2003 CEOs Win, Workers and Taxpayers Lose").

We believe that it is long past time for shareholders to be proactive and provide companies clear input on the parameters of what they consider to be reasonable and fair executive compensation. We believe that executive compensation should be designed to promote the creation of long-term corporate value. The Commonsense executive compensation principles seek to focus senior executives, not on quarterly performance numbers, but on long-term corporate value growth, which should benefit all the important constituents of the Company. We challenge our Company's leadership to embrace the ideas embodied in the Commonsense proposal, which still offers executives the opportunity to build personal long-term wealth but only when they generate long-term corporate value."

# Our Comments Regarding the Proposal to Limit Senior Executive Compensation

The Board believes that, in view of a competitive marketplace, adoption of this proposal would severely limit our ability to attract, motivate and retain senior executives, including our Chief Executive Officer. We must be able to offer integrated compensation programs that pay competitively and consistently with comparable companies, align executive compensation with shareholder interests and link pay to our performance and to the senior executive's individual performance.

The Compensation Committee, which consists entirely of independent directors as defined under Nasdaq rules, recognizes its responsibility to recommend executive compensation decisions that are in the best interest of the company and our shareholders. The committee and the Board devote significant time and effort to assess the performance of our Chief Executive Officer and the other senior executives and consider, among other things, our goals and objectives, performance and relative shareholder return, the value of similar incentive awards to senior executives at comparable companies, awards made to our senior executives in prior years and our obligations under existing employment agreements. The report of the Compensation Committee included elsewhere in this proxy statement further explains the philosophy and methodology of our compensation program for senior executives. The Board believes that it is ultimately in our shareholders' best interest that this process not be subject to the limitations reflected in Proposal 8.

FOR THESE REASONS, THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "AGAINST" THIS PROPOSAL.

# **PROPOSAL 9: TO ADOPT A RECAPITALIZATION PLAN**

The following proposal and supporting statement were submitted by the Communications Workers of America Members' Relief Fund, 501 Third Street, N.W., Washington, D.C. 20001-2797, which has advised us that it holds 10,500 shares of our common stock.

**RESOLVED:** The shareholders request that the Board of Directors take the steps that may be necessary to adopt a recapitalization plan that would provide for all of the Company's outstanding stock to have one vote per share.

## Supporting Statement

Comcast has an unusual dual class capital structure that gives Brian L. Roberts a disproportionate percentage of the shareholder votes. According to the 2002 Annual Report, Mr. Roberts "has a 33 ½3% nondilutable voting interest" as the beneficial owner "of all outstanding shares of our Class B common stock." This gives Mr. Roberts one-third of the voting power with beneficial ownership of less than one percent of Comcast's total market value.

In contrast, the 1.4 million record holders of Class A common stock have just " $66\frac{2}{3}$ % of the aggregate voting power." This ratio is maintained by adjusting the voting power of the Class A Common stock before each election to reflect "the number of shares of Class A common stock and Class B common stock then outstanding."

For example, Mr. Roberts controlled 9.4 million shares of Class B stock that was entitled to fifteen votes per share at the 2003 Annual Meeting. To maintain his "33 1/3% nondilutable voting interest," the 1.35 billion shares of Class A common stock was allocated just "0.2090 vote," or about 1/5 of a vote per share. This gave each share of the Class B stock about 75 times the voting power of a single share of Class A stock.

We believe this disproportionate voting power is dangerous to the interests of the shareholders. As Louis Lowenstein has observed, dual class voting stocks reduces accountability by allowing corporate control to be seized or retained by corporate officers or insiders. What's Wrong With Wall Street (1988).

We believe the danger of giving disproportionate power to insiders is illustrated by the experience of Adelphia Communications, which was the nation's sixth largest cable television company in 2002. Adelphia's dual class voting stocks gave the Rigas family control and, in that manner, contributed to the Company's participation in "one of the most extensive financial frauds ever to take place at a public company." See Securities and Exchange Commission Litigation Release No. 17627 (July 24, 2002).

The Securities and Exchange Commission has alleged, among other things, that Adelphia fraudulently excluded more than \$2.3 billion in bank debt from its consolidated financial statements and concealed "rampant self-dealing by the Rigas Family." Meanwhile, the price of Adelphia stock collapsed from \$20.39 on March 26, 2002 to \$0.79 on June 3, 2002, when it was delisted by the NASD.

Comcast has a market capitalization in excess of \$65 billion, which may make it the largest public company with a dual class voting structure. In our view, this large capitalization magnifies the danger to investors that is inherent in any dual class voting structure. Please vote for this proposal to persuade the Board to take steps toward giving each share of Comcast stock one vote per share.

# Our Comments Regarding the Proposal to Adopt a Recapitalization Plan

The dual voting class structure of Comcast has existed since the company went public in 1972. Prior to our acquisition of AT&T Corp.'s broadband business in November 2002, Mr. Brian L. Roberts beneficially owned Comcast stock representing approximately 87% of the combined voting power of all Comcast stock. In connection with that transaction. Mr. Roberts agreed to reduce his voting interest to a 33 1/3% nondilutable interest. Without this concession, the AT&T Broadband transaction, which has proved so beneficial to Comcast, would not have been possible. Moreover, at the AT&T Corp. shareholders meeting relating to the AT&T Broadband transaction, the AT&T shareholders not only approved the AT&T Broadband transaction as a whole but also separately approved the governance terms of that transaction, which approval was a condition to completing the AT&T Broadband transaction. In fact, approximately 92% of the AT&T shareholders voting on the governance proposal voted to approve it.

We believe that the historical success of Comcast is owed in large part to the respected and stable leadership provided by Mr. Roberts and the Roberts family. Through their leadership and focus on long-term growth, Comcast has a proven track record for creating shareholder value. Our shares have consistently outperformed leading stock indices by significant margins, including the S&P 500 by a margin of more than 2 to 1 since Comcast went public in 1972. We believe that Mr. Roberts and the Roberts family have been, and will continue to be, crucial to the long-term success of our business and our position of financial strength.

Under Pennsylvania law and our Articles of Incorporation, no recapitalization that affects the voting rights of our Class B Common Stock can be effected without the separate approval of Mr. Brian L. Roberts, as beneficial owner of our Class B Common Stock.

# FOR THESE REASONS, THE BOARD UNANIMOUSLY RECOMMENDS THAT SHAREHOLDERS VOTE "AGAINST" THIS PROPOSAL.

# **EXECUTIVE COMPENSATION**

# **Summary Compensation Table**

This table sets forth certain information regarding the annual and long-term compensation we paid to or for our President and Chief Executive Officer and each of our other executive officers named in the table (the "named executive officers") for each of our last three fiscal years or, in some instances the period of time, if shorter, such individual has been one of our executive officers.

Long-Term Compensation

		Annual Compensation		Long-Term C			
Name and Principal Position(1)	Year	Salary (\$)	Bonus (\$)(2)	Other Annual Compensation (\$)(3)	Restricted Stock Awards (\$)	Number of Securities Underlying Options (#)	All Other Compensation (\$)(4)
Brian L. Roberts	2003	2,001,000	6,000,000	365,618		950,100(7)	255,981
President and Chief						3,252(9)	
Executive Officer	2002	1,238,623	6,000,000	216,714		750,000(8)	237,319
						2,100(9)	
	2001	1,102,500	1,653,750	427,817		750,000(8)	249,564
						4,680(9)	
Stephen B. Burke	2003	1,167,886	5,166,886	554		500,100(7)	488,165
Executive Vice	2002	991,105	1,166,886	1,770		1,200,000(8)	282,899
President; President, Comcast Cable	2001	926,100	463,050	3,468		500,000(8)	179,396
Ralph J. Roberts	2003	1,601,000	1,600,000	3,590,770		650,100(7)	4,867,132
Chairman of the		1,265,478		3,387,679		600,000(8)	6,888,647
Executive and Finance						4,000(9)	
Committee of the Board of Directors	2001	1,171,325	585,663	3,065,388		1,100,000(8)	9,660,949
Lawrence S. Smith	2003	1,040,500	1,039,500	1,914		450,100(7)	344,844
Co-Chief Financial	2002	882,909	1,039,500	1,922		420,000(8)	282,289
Officer and Executive						1,600(9)	
Vice President	2001	825,000	412,500	3,754		250,000(8)	230,521
David L. Cohen	2003	961,000	960,000	2,175		400,100(7)	28.908
Executive Vice	2002	400,000		558	476,800(5)	610,000(8)	1,384
President			ŗ			, , , ,	,
John R. Alchin	2003	883,000	882,000	105,157		400,100(7)	336,020
Co-Chief Financial	2002	750,135	882,000	29,302		310,000(8)	242,306
Officer, Executive Vice		,		,		600(9)	
President and Treasurer	2001	701,000	350,000	58,872		200,000(8)	195,343
C. Michael Armstrong	2003	1.801.000	2.700.000	464,702		100(7)	4,753,218
Non-Executive Chairman of the Board of Directors	2002	173,077	337,500		10,376,358(6)	2,566,258(10) 2,400,000(11)	.,, 55,210

<sup>(1)</sup> Includes our President and Chief Executive Officer, the five other most highly compensated individuals who were our executive officers at the end of 2003 and one additional individual, Mr. Armstrong, who was not an executive officer at the end of the last fiscal year but who is required to be included in the Summary Compensation Table under applicable rules, each as measured by salary and bonus. Mr. Cohen became an executive officer on July 1, 2002, and Mr. Armstrong became an executive officer on November 18, 2002. For this reason, with respect to Messrs. Cohen and Armstrong, only information beginning with fiscal year 2002 is included in the Summary Compensation Table.

- (2) The amounts in this column include bonuses earned by the named executive officers in 2003, 2002 and 2001 under our 2002 Executive Cash Bonus Plan and in 2003 and 2002 under our 2002 Supplemental Cash Bonus Plan (other than Mr. Armstrong).
- (3) This column includes (a) payments to the named executive officers to cover their tax liabilities incurred in connection with various items, calculated assuming the highest individual income tax bracket, including: (i) local taxes on certain stock option exercises by Messrs. Brian L. Roberts and Alchin; (ii) payments to Mr. Ralph J. Roberts to cover the premiums attributable to the term life insurance portion of certain split-dollar life insurance policies (see note 4(a) below); (iii) payments to Mr. Brian L. Roberts to cover the premiums attributable to term life insurance policies (see note 4(b) below); (iv) payments to Mr. Armstrong to cover the premiums attributable to a universal life insurance policy (see note 4(c) below); and (v) payments to cover premiums attributable to our executive long-term disability plan (see note 4(g) below); (b) amounts on account of personal use of company aircraft in 2003, determined as the extent to which the value of such use, calculated on an incremental cost basis, exceeds the amount paid to us for such use pursuant to company policy (Mr. Brian L. Roberts, \$73,712; Mr. Ralph J. Roberts, \$59,509; and Mr. Armstrong, \$355,609); (c) amounts on account of personal use of company-provided administrative support (Messrs. Brian L. Roberts and Ralph J. Roberts, each \$33,266); and (d) amounts with respect to other incidental personal benefits. The use of company aircraft is required by company policy for security reasons with respect to personal and business travel by Messrs. Brian L. Roberts, Ralph J. Roberts and Armstrong. In 2003, each of the named executive officers other than Messrs. Brian L. Roberts, Ralph J. Roberts and Armstrong received, after payment to us pursuant to company policy, personal benefits in an amount less than \$50,000 (the minimum amount required for disclosure under the rules of the Securities and Exchange Commission). The amount of such payments made pursuant to company policy by Mr. Brian L. Roberts with respect to 2003 and 2002, and Mr. Burke with respect to 2003, for items that otherwise would have been personal benefits, exceeded \$60,000.
- (4) This column includes (with respect to amounts applicable to 2003): (a) payments to certain named executive officers to reimburse them for their payment of premiums attributable to the term life insurance portion of certain split-dollar life insurance policies (Mr. Brian L. Roberts, \$1,630; Mr. Ralph J. Roberts, \$2,365,901; Mr. Smith, \$1,930; and Mr. Alchin, \$1,725); (b) payments to cover premiums attributable to term life insurance policies (Mr. Brian L. Roberts, \$189,099); (c) payments to cover premiums attributable to a universal life insurance policy (Mr. Armstrong, \$163,299); (d) payments to cover financial counseling services (Mr. Armstrong, \$91,563); (e) payment of \$4,241,145 to Mr. Armstrong upon settlement of an award of restricted stock units granted to Mr. Armstrong in 1997, which we assumed as part of our acquisition of AT&T Corp.'s broadband business (see note 6 below), representing the difference between the fair market value of the restricted stock units on the date of settlement and the guaranteed amount of \$10 million (pursuant to the preexisting terms of the award); (f) contributions to our Retirement-Investment Plan in the amount of \$12,000 for each of the named executive officers (other than Mr. Armstrong); (g) payments to certain named executive officers to cover the premiums attributable to our executive long-term disability plan (Mr. Brian L. Roberts, \$4,104; Mr. Smith, \$1,658; and Mr. Alchin, \$5,938); and (h) the dollar value of interest earned on deferred compensation in excess of 120% of the long-term applicable federal rate (the current rate on deferred compensation is 12%) (Mr. Brian L. Roberts, \$49,148; Mr. Burke, \$476,165; Mr. Ralph J. Roberts, \$2,489,231; Mr. Smith, \$329,256; Mr. Cohen, \$16,908; Mr. Alchin, \$316,357; and Mr. Armstrong, \$257,211).
- (5) On July 1, 2002, we granted Mr. Cohen an award of 20,000 restricted shares of Class A Special Common Stock. 25% of the shares subject to this award vested or will vest on each of January 2, 2003, 2004, 2005 and 2006. The per share value of the Class A Special Common Stock on the date of grant was \$23.84.

The aggregate number of shares and value with respect to the named executive officers on December 31, 2003 for restricted stock holdings were: Mr. Cohen, 15,000 shares of Class A Special Common Stock (\$469,350); and Mr. Armstrong, 110,255 shares of Class A Common Stock (\$3,615,261). Holders of restricted shares do not have any voting rights with respect to these shares.

- (6) Pursuant to the terms of our acquisition of AT&T Corp.'s broadband business on November 18, 2002. certain options to purchase, and awards based on, AT&T common stock were automatically converted into options to purchase, and awards based on, our common stock. Existing AT&T common stock-based awards held by Mr. Armstrong at the time of the AT&T Broadband acquisition (other than options, the treatment of which is described below) were converted into awards with respect to a certain number of shares or stock units of Class A Common Stock and awards for a certain number of stock units (valued with respect to AT&T common stock). The total value of these awards as of November 18, 2002 is reflected in the Summary Compensation Table. As of November 18, 2002, the value of the portion of the awards based on shares of Class A Common Stock was \$6,357,111, based on the underlying award of 110,255 restricted shares and 142,714 restricted stock units vested and was paid out on May 7, 2003 (see note 4(e) above). The award of 110,255 restricted shares will vest on December 31, 2004 or, if Mr. Armstrong elects to retire from service with us in accordance with the terms of his employment agreement, on the date that he retires.
- (7) Represents the number of shares of Class A Common Stock issuable upon the exercise of options.
- (8) Represents the number of shares of Class A Special Common Stock issuable upon the exercise of options.
- (9) Represents the number of shares of QVC common stock issuable upon exercise of options granted to certain named executive officers by the Compensation Committee of the QVC Board of Directors pursuant to the QVC stock option and stock appreciation rights plan. As a result of the sale of our interest in QVC on September 17, 2003, all options to purchase QVC common stock held by our employees were cancelled. See the "Aggregated QVC Option Exercises in 2003 and QVC Option Values at December 31, 2003" table for more information on the terms of this cancellation.
- (10) Pursuant to the terms of the AT&T Broadband acquisition, options to purchase shares of AT&T common stock held by Mr. Armstrong at the time of the AT&T Broadband acquisition were automatically converted into options to purchase 2,566,258 shares of Class A Common Stock, having various exercise prices based on the exchange ratio used in this acquisition.
- (11) Pursuant to the terms of the AT&T Broadband acquisition, we were required to enter into an employment agreement with Mr. Armstrong on substantially the same terms as his prior employment agreement with AT&T Corp. Under this employment agreement, to compensate him for equity-based compensation that he would have received under the terms of his prior employment agreement with AT&T Corp., Mr. Armstrong was awarded an option to purchase 2,400,000 shares of Class A Common Stock, having an exercise price of \$25.00, the fair market value of a share of the Class A Common Stock on November 20, 2002 (the date of grant).

# **Stock Option Grants**

This table contains information concerning grants of employee stock options we made to the named executive officers during 2003. No stock appreciation rights were granted during 2003 to the named executive officers.

	Individual Grants(1)						
Name	Number of Securities Underlying Options Granted (#)	% of Total Options Granted to Employees in 2003	Exercise Price (\$/Sh)	Expiration Dates	Grant Date Present Value (\$)(2)		
Brian L. Roberts	950,000	3.8%	27.12	02/26/13	9,994,000		
	100	*	32.12	12/31/05	635		
Stephen B. Burke	500,000	2.0%	27.12	02/26/13	5,260,000		
-	100	*	32.12	12/31/05	635		
Ralph J. Roberts	650,000	2.6%	27.12	02/26/13	6,838,000		
	100	*	32.12	12/31/05	635		
Lawrence S. Smith	450,000	1.8%	27.12	02/26/13	4,734,000		
	100	*	32.12	12/31/05	635		
David L. Cohen	400,000	1. <b>6%</b>	27.12	02/26/13	4,208,000		
	100	*	32.12	12/31/05	635		
John R. Alchin	400,000	1.6%	27.12	02/26/13	4,208,000		
	100	*	32.12	12/31/05	635		
C. Michael Armstrong	100	*	32.12	12/31/05	635		

# **Comcast Stock Option Grants in 2003**

\* Less than one percent of total options to purchase common stock granted to our employees in 2003.

- (1) Options are for the purchase of shares of Class A Common Stock and were granted on February 26, 2003 or April 24, 2003 under our stock option plans. All options granted in 2003 have exercise prices equal to the fair market value of the underlying shares on the date of grant. Options granted on February 26, 2003 generally become exercisable at the approximate rate of 30% of the shares covered thereby on the second anniversary of the date of grant, another 15% on each of the third, fourth and fifth anniversaries of the date of grant, another 5% on each of the sixth through ninth anniversaries of the date of grant and 5% six months prior to the tenth anniversary of the date of grant. Options granted on April 24, 2003, which were part of an all-employee grant required to be made under the terms of the AT&T Broadband acquisition agreement, become exercisable in full on April 24, 2005.
- (2) These amounts represent the estimated present value of options at the date of grant calculated using the Black-Scholes option-pricing model, based upon the following assumptions used in developing the grant valuations: an expected volatility of approximately 29.2%; an expected term to exercise of seven years; an interest rate of approximately 3.5%; and no dividend yield. The actual value of these options, if any, realized by an executive officer will depend on the extent to which the market value of the Class A Common Stock exceeds the exercise price of the option on the date the option is exercised. Consequently, there is no assurance that the value realized by a named executive officer will be at or near the value estimated above. These amounts should not be used to predict share performance.

This table contains information concerning grants of options under the QVC stock option and stock appreciation rights plan to the named executive officers during 2003. Each option under this plan was granted with a tandem stock appreciation right that entitles the recipient, in lieu of exercising the option to which the stock appreciation right relates, to receive a cash payment equal to 75% of the difference between the fair market value of a share of stock on the date of exercise and the exercise price of the option.

	Individual Grants (1)						
Name	Number of Securities Underlying Options/Stock Appreciation Rights Granted (#)	% of Total Options Granted to Employees in 2003(2)	Exercise Price (\$/Sh)	Expiration Dates	Grant Date Present Value (\$)(3)		
Brian L. Roberts	283	0.8%	1,768.00	01/10/2013	182,175		
	1,449	4.3%	1,768.00	02/07/2013	907,415		
	1,520	4.5%	1,768.00	03/07/2013	917,038		
Stephen B. Burke		—	_		—		
Ralph J. Roberts							
Lawrence S. Smith	_	—					
David L. Cohen			_		—		
John R. Alchin		—		—			
C. Michael Armstrong	—	—	<u> </u>				

#### **QVC Stock Option Grants in 2003**

(1) Pursuant to the terms of the QVC stock option and stock appreciation rights plan, these options were granted on January 10, 2003, February 7, 2003 and March 7, 2003. These options were granted at an exercise price representing the value of the shares underlying such options on the date of grant as determined pursuant to this plan, and had a vesting schedule of 20% vesting on each anniversary of the date of grant, based on continued service. As a result of the sale of our interest in QVC, all options to purchase shares of QVC common stock held by our employees were cancelled in exchange for a cash payment (or a deferred cash payment) from us equal to the difference between the value of the consideration we received from the buyer for each share of QVC we owned and the exercise price of the option. See the "Aggregate QVC Option Exercises in 2003 and QVC Option Values at December 31, 2003" table for more information on the terms of this cancellation.

- (2) Total options granted to employees in 2003 only includes options granted in the period beginning on January 1, 2003 and ending on September 17, 2003, which is the period in 2003 that we owned an interest in QVC.
- (3) These amounts represent the estimated present value of options at the date of grant calculated using the Black-Scholes option pricing model, based upon the following assumptions used in developing the grant valuations: an expected volatility of approximately 20.0%; an expected term to exercise of eight years; an interest rate of approximately 3.8%; and no dividend yield. As a result of the cancellation of the options in connection with the sale of our interest in QVC, the actual value of the options realized by a named executive officer depended on the extent to which the fair market value of the QVC common stock, as determined in connection with the sale, exceeded the exercise price of the option.

## **Stock Option Exercises and Holdings**

This table contains information related to options to purchase shares of Class A Special Common Stock exercised during 2003 by the named executive officers and the number and value of options to purchase Class A and Class A Special Common Stock held at December 31, 2003 by such individuals. No options to purchase shares of Class A Common Stock were exercised by the named executive officers in 2003.

	Shares Acquired on Exercise	Snares Options at In-the-M Acquired December 31 2003 (#) December		Underlying Unexercised Options at		exercised Options at 1, 2003 (\$)
Name	(#)	Realized (\$)	Exercisable	Unexercisable	Exercisable	Unexercisable
Brian L. Roberts	288,748(1)	5,629,042(1)	8,628,117(1)	5,224,000(1)	58,349,445(1)	15,855,375(1)
	— (2)	— (2)	(2)	950,100(2)	— (2)	5,386,567(2)
Stephen B. Burke	— (1)	— (1)	2,156,730(1)	2,937,500(1)	21,216,601(1)	10,075,361(1)
	— (2)	(2)	— (2)	500,100(2)	— (2)	2,835,067(2)
Ralph J. Roberts	1,310,868(1)	28,543,150(1)	1,945,902(1)	1,469,000(1)	18,374,159(1)	— (1)
	— (2)	- (2)	— (2)	650,100(2)	- (2)	3,685,567(2)
Lawrence S. Smith	30,192(1)	561,334(1)	1,136,530(1)	1,502,500(1)	14,156,265(1)	6,853,275(1)
	— (2)	(2)	— (2)	450,100(2)	(2)	2,551,567(2)
David L. Cohen	— (1)	- (1)	— (1)	610,000(1)	— (1)	2,876,500(1)
	(2)	(2)	— (2)	400,100(2)	— (2)	2,268,067(2)
John R. Alchin	<b>70,943(</b> 1)	1,494,348(1)	1,269,387(1)	1,142,500(1)	18,772,284(1)	5,468,363(1)
	(2)	- (2)	( )	, , ,	— (2)	2,268,067(2)
C. Michael Armstrong	- (2)	(2)	2,018,065(2)	2,948,293(2)	1,039,776(2)	21,464,421(2)

# Aggregated Comcast Option Exercises in 2003 and Comcast Option Values at December 31, 2003

(1) Information is with respect to shares of Class A Special Common Stock.

(2) Information is with respect to shares of Class A Common Stock.

This table contains information related to options to purchase shares of QVC common stock exercised by the named executive officers or settled by us during 2003 and the number and value of options to purchase QVC common stock held at December 31, 2003 by such individuals.

# Aggregated QVC Option Exercises in 2003 and QVC Option Values at December 31, 2003

	Shares Acquired on	Value Realized	Number of Securities Underlying Unexercised Options at December 31, 2003 (#)		Value of Unexercised In-the-Money Options at December 31, 2003 (\$)	
Name	Exercise (#)	(\$)(1)	Exercisable	Unexercisable	Exercisable	Unexercisable
Brian L. Roberts	1,808	16,963,915		_	_	
Stephen B. Burke						_
Ralph J. Roberts		4,160,560		_		-
Lawrence S. Smith	2,280	4,717,184		_		
David L. Cohen	_			_		_
John R. Alchin	240	2,027,191	_		_	
C. Michael Armstrong	—				—	—

(1) As a result of the sale of our interest in QVC, (i) all shares of QVC common stock held by our employees (all of which were acquired upon the exercise of options) were purchased in exchange for a cash payment

from us equal to the value of the consideration we received from the buyer for each share of QVC we owned (Mr. Brian L. Roberts, \$4,936,093; Mr. Smith, \$6,224,719; and Mr. Alchin, \$4,586,635, which amounts include \$1,466,259, \$2,228,077 and \$248,846, respectively, realized with respect to shares acquired on option exercises in 2003), and (ii) all options to purchase shares of QVC common stock held by our employees were cancelled in exchange for a cash payment (or a deferred cash payment as described below) from us equal to the difference between the value of the consideration we received from the buyer for each share of QVC we owned and the exercise price of the option. With respect to QVC options that were vested at the time of sale, payment in exchange for the cancellation of these options (Mr. Brian L. Roberts, \$3,041,808; Mr. Ralph J. Roberts, \$4,160,560; and Mr. Smith, \$904,288) was made as of the date of the sale of QVC. With respect to QVC options that were unvested at the time of the sale, payment in exchange for the cancellation of these options (Mr. Brian L. Roberts, \$12,455,848; Mr. Smith, \$1,584,819; and Mr. Alchin, \$1,778,345, plus, in each case, an amount equal to 8% per annum from the date of the sale of QVC through the original vesting date of the option) will be made on the same vesting schedule as the original options, as long as the recipient remains continuously employed by us through such dates. The options' original vesting schedule provided for 20% vesting on each anniversary of the grant date of the option. Payments may be electively deferred beyond their scheduled payment dates.

This column includes amounts realized or to be realized with respect to all option cancellations as well as amounts realized with respect to shares acquired on option exercises in 2003.

This table summarizes our equity plan information as of December 31, 2003. This table does not include any shares that may be issued pursuant to the proposed additional shares under our 2002 Restricted Stock Plan that is the subject of Proposal 3 of this proxy statement.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security			
holders: (1)			
Class A Common Stock	85,462,945	\$39.28	65,590,369
Class A Special Common Stock	61,036,926	\$29.43	—
Equity compensation plans not approved by			×
security holders			
Total (2)	146,499,871		65,590,369

# **Equity Compensation Plan Information**

 Includes the following plans: the Comcast Corporation 1987 Stock Option Plan, the Comcast Corporation 2002 Stock Option Plan, the Comcast Corporation 2002 Restricted Stock Plan, the Comcast Corporation 2002 Employee Stock Purchase Plan and the Comcast Corporation 2003 Stock Option Plan.

(2) Includes stock options, restricted stock and other equity-based awards assumed in connection with our acquisition of AT&T Corp.'s broadband business in November 2002, which were granted under the AT&T Broadband Corp. Adjustment Plan. As of December 31, 2003, these assumed stock options are exercisable for 57,616,255 shares of Class A Common Stock and have a weighted average exercise price of \$44.45 per share. Restricted stock and other equity-based awards granted under the AT&T Broadband Corp. Adjustment Plan are issuable, as of December 31, 2003, into 115,292 shares of Class A Common Stock. No additional awards have been or will be made under this plan.

# **Pension Plan**

Under our Supplemental Executive Retirement Plan, adopted July 31, 1989. supplemental retirement, death and disability benefits may be paid to or in respect of certain of our and our affiliated companies' senior executives, as selected by the Board. Mr. Ralph J. Roberts (who is credited with 30 years of service, the maximum credited service allowed under the Supplemental Executive Retirement Plan) is the only current named executive officer selected by the Board to participate in the Supplemental Executive Retirement Plan. The Supplemental Executive Retirement Plan contemplates the payment of various percentages of a participant's final average compensation (as actuarially reduced, in certain circumstances, and as defined below) if the participant (i) elects to retire early (after the later of the participant's 55th birthday or 20 years of service with us); (ii) retires at age 65 or after; (iii) suffers a permanent disability which renders the participant incapable of employment in the same or a similar occupation; or (iv) dies. A participant may elect a reduction in lifetime benefits in exchange for the continuation of payments to a surviving spouse or his designated beneficiary.

This table shows the annual single life annuity retirement benefit which Mr. Ralph J. Roberts would receive based on remuneration covered by, and years of service credited under, the Supplemental Executive Retirement Plan if he had retired on January 1, 2004 at age 65 (or older). The benefits shown below are subject to reduction for Social Security benefits.

## **Pension Plan Table**

Final Average Compensation(1)	Years of Service 30 or More(2)
\$1,600,000	\$ 960,000
1,700,000	
1,800,000	
1,900,000	
2,000,000	

- (1) Final average compensation equals one-fifth of the total compensation for the five years preceding termination of employment. Compensation includes salary, bonus (including any deferred bonus) and any other supplementary remuneration, but excludes payments made to participants for split-dollar life insurance premium bonuses and payments made to offset tax liabilities incurred related to these bonuses. In the case of Mr. Ralph J. Roberts, final average compensation may, under some circumstances, be increased as described below in "Agreements with Executive Officers—Compensation Agreement with Mr. Ralph J. Roberts —Election to Become a Consultant".
- (2) This column represents the maximum benefits payable under the Supplemental Executive Retirement Plan.

#### Agreements with Executive Officers

Compensation Agreement with Mr. Brian L. Roberts

We have entered into a compensation agreement with Mr. Brian L. Roberts, our President and Chief Executive Officer. The following is a description of the material terms of the compensation agreement, as amended.

Term. The term of the compensation agreement is from June 16, 1998 through the date of our 2005 annual meeting of shareholders.

*Base Salary.* Mr. Roberts will receive an annual base salary of \$2 million, as adjusted (but not reduced, except pursuant to an overall plan to reduce the compensation of all our senior executive officers) from time to time to reflect his contribution to our growth and success.

*Bonus; Stock Awards.* Mr. Roberts is eligible to receive an annual performance bonus, payable in cash, of up to 150% of his base salary for the applicable year. The amount of the bonus is determined annually by the Compensation Committee, in accordance with, and upon satisfaction of, the standards contained in our Executive Cash Bonus Plan. Mr. Roberts is also eligible to participate in our Supplemental Cash Bonus Plan. Under the terms of the compensation agreement, Mr. Roberts received grants of options to purchase 3,000,000 shares of Class A Special Common Stock granted effective June 16, 1998 and options to purchase 1,000,000 shares of Class A Special Common Stock granted effective each fiscal quarter in 1999 and 2000.

Deferred Compensation. With our consent, Mr. Roberts may cause the payment of all or a portion of the compensation payable to him to be deferred in accordance with and subject to our Deferred Compensation Plan.

*Termination.* The compensation agreement will terminate upon the death of Mr. Roberts, at our option upon his disability or for cause, upon a vote of not less than three-fourths of the entire membership of the Board. If his employment is terminated by reason of his death or disability, we must continue to pay his annual base salary on a monthly basis to him or his spouse, during their lifetimes, for a maximum of five years, and the accrued cash bonus as provided for in the compensation agreement and any applicable health plan benefits will continue to be payable. If we terminate his employment in violation of the compensation agreement, he remains entitled to substantially all of the benefits under the compensation agreement.

Noncompetition and Confidentiality. Mr. Roberts has agreed not to compete with us during his employment and for two years after termination of his employment. He is also required to maintain the confidentiality of our information and not to use such information except for our benefit. Breach by Mr. Roberts of any of these obligations constitutes cause for termination of the compensation agreement and terminates our obligations for payments subsequent to his termination.

Term Life Insurance Agreement with Mr. Roberts. We have entered into a Term Life Insurance Premium and Tax Bonus Agreement dated as of September 23, 1998 with Mr. Roberts. This agreement provides that, as additional compensation to him, we will reimburse him for all of the premiums on certain specified 20- and 15year level-premium term life insurance policies, and that we will pay him an additional bonus equal to the income tax payable on such reimbursement and the bonus. The annual amount of the premiums to be reimbursed under this agreement is approximately \$189,000 through 2012 and \$177,000 from 2013 through 2017. The Term Life Insurance Premium and Tax Bonus Agreement does not terminate upon termination of Mr. Roberts' employment with us.

Change of Control Provisions. Prior to any change of control, we must establish and fund a grantor trust, the amounts in which will be subject to claims of our creditors in the case of our bankruptcy, for the purpose of paying all compensation, deferred compensation and term life insurance premiums and bonuses for Mr. Roberts then applicable. Upon the occurrence of a change of control, such trust must become irrevocable and we must continue to make payments into such trust to maintain sufficient amounts to fund all benefits subject to the trust. While our acquisition of AT&T Corp.'s broadband business in November 2002 was a change of control under the compensation agreement, Mr. Roberts elected to waive his right to have us fund the trust at that time; however, Mr. Roberts may exercise this right at any time by providing notice to us.

## Compensation Agreement with Mr. Ralph J. Roberts

We have entered into a compensation agreement with Mr. Ralph J. Roberts, the founder of Comcast and Chairman of the Executive and Finance Committee of the Board. The following is a description of the material terms of the compensation agreement, as amended.

Term; Position. The term of the compensation agreement is from August 31, 1998 to December 31, 2007. The compensation agreement provides that Mr. Roberts will serve as Chairman of the Executive and Finance Committee of the Board until such time as he may elect to change his status to that of a non-executive consultant, and that until he makes such election he will continue to devote substantially all of his working time to us.

If Mr. Roberts elects to become a non-executive consultant, he will devote such time as is necessary to perform the functions we reasonably request. In addition, for a period of five years following any termination of the service period of the compensation agreement, Mr. Roberts will perform such reasonable ceremonial functions as we may request and will promote our interests and goodwill as we may reasonably request.

*Base Salary.* The compensation agreement provides that Mr. Roberts will receive an annual base salary of \$1.6 million, as adjusted (but not reduced, except pursuant to an overall plan to reduce the compensation of all our senior executive officers) in order to reflect the greater of increases in the consumer price index subsequent to 1997 and the average percentage increase in the base compensation of our five employees (other than Mr. Ralph J. Roberts) with the highest base compensation during the preceding year.

*Bonus.* So long as he continues to serve as one of our executive officers, Mr. Roberts will be eligible to receive annual bonuses of up to 50% of his base salary in accordance with our Executive Cash Bonus Plan, based on performance targets established by the Compensation Committee. Mr. Roberts is also eligible to participate in our Supplemental Cash Bonus Plan.

Split-Dollar Life Insurance. The compensation agreement requires that we continue to provide and maintain the split-dollar life insurance provided to Mr. Roberts under a previous agreement and to provide additional survivorship split-dollar life insurance to Mr. Roberts and his spouse. Such split-dollar life insurance includes certain split-dollar life insurance provided to replace the potential benefits represented by our predecessor's terminated discretionary bonus plan with respect to the appreciation through March 15, 1994 in the options for Class A Special Common Stock previously awarded to Mr. Roberts, taking into account our financial position and the tax deductibility of any such payments. Under the compensation agreement and the terms of the split-dollar life and joint-and-survivor life insurance policies for Mr. Roberts, and upon payment of the policies at the death of Mr. Roberts or of the survivor of Mr. Roberts and his spouse, as applicable, we recover all of the cumulative premiums previously paid by us for the whole-life portion of such policies. As of July 30, 2002, due to considerations raised by the Sarbanes-Oxley Act of 2002, we ceased to pay the premiums associated with Mr. Roberts' split-dollar life insurance policies.

Supplemental Death Benefit. Upon the death of Mr. Roberts, the compensation agreement requires us to pay a supplemental death benefit to a beneficiary designated by Mr. Roberts. The compensation agreement substituted this death benefit for two bonus arrangements of comparable value included in a prior agreement that were based on appreciation of Class A Common Stock from the date of grant of options to purchase Class B Common Stock to the date of exercise. We must pay the death benefit within six months from the date of Mr. Roberts' death. Under the terms of the compensation agreement, Mr. Roberts requested that we invest portions of the death benefit in certain investments identified by Mr. Roberts. We have complied with Mr. Roberts' request, and the amount of the death benefit has been adjusted to reflect the increase or decrease in value of any such investments. As of December 31, 2003, the amount of the death benefit was approximately \$34.5 million.

*Termination.* The compensation agreement will terminate upon Mr. Roberts' death, at our option upon his disability or for cause, upon a vote of not less than two-thirds of the entire membership of the Board. If his employment is terminated by reason of his death or disability, we must continue to pay his annual base salary on a monthly basis to him, during his lifetime, or to the beneficiary designated by him for five years, and his accrued cash bonus and the death benefit will continue to be payable in accordance with their terms. If he dies, all of his outstanding stock options will vest fully and remain exercisable for their remaining terms. If we terminate his employment in violation of the compensation agreement, he will remain entitled to substantially all of the benefits under the compensation agreement.

Noncompetition and Confidentiality. Mr. Roberts has agreed not to compete with us during his employment and for five years after termination of his employment. The compensation agreement also requires him to maintain the confidentiality of our information and not to use such information, except for our benefit, at all times during his employment and after termination of his employment. Breach by Mr. Roberts of any of these obligations constitutes cause for termination of the compensation agreement and terminates our obligations for payments subsequent to his termination.

Change of Control Provisions. Prior to any change of control, we must establish and fund a grantor trust, the amounts in which will be subject to claims of our creditors in the case of our bankruptcy, for the purpose of paying all deferred compensation, nonqualified retirement benefits and split-dollar life insurance premiums and bonuses for Mr. Roberts then applicable. Upon the occurrence of a change of control, such trust must become irrevocable, and we must continue to make payments into such trust to maintain sufficient amounts to fund all benefits subject to the trust. While our acquisition of AT&T Corp.'s broadband business in November 2002 was a change of control under the compensation agreement, Mr. Roberts elected to waive his right to have us fund the trust at that time; however, Mr. Roberts may exercise this right at any time by providing notice to us.

*Election to Become a Consultant.* Mr. Roberts may at any time, upon 30 days' notice to us, elect to change his position from an executive to a consultant. In such event, he will continue to receive all of the compensation provided under the compensation agreement, other than the bonus to which he would otherwise be entitled under our Executive Cash Bonus Plan. If he elects to become a consultant, Mr. Roberts' entitlement to retirement benefits under our Supplemental Executive Retirement Plan will be adjusted annually to reflect 150% of his base salary as a consultant, but his benefits under such plan will not in any event exceed the bonus he could have received under the compensation agreement had he continued to work as an executive.

#### Employment Agreement with Mr. Burke

We have entered into an employment agreement with Mr. Stephen B. Burke, an Executive Vice President and President of Comcast Cable. As of January 1, 2004, we amended and restated Mr. Burke's employment agreement. The following is a description of the material terms of this agreement.

Term. The term of the agreement is from January 1, 2004 through December 31, 2008.

*Base Salary*. The agreement provides for a base salary of 1,225,230 in 2004. For each year in the term subsequent to 2004, the base salary is increased by the greater of 5% or the percentage increase during the previous year in the consumer price index (up to a maximum of 10%).

*Bonus.* Mr. Burke is eligible to receive an annual cash performance bonus of 50% of his base salary under our Executive Cash Bonus Plan, commencing in 2004, as well as a cash bonus of 50% under our Supplemental Cash Bonus Plan in each of 2004 and 2005. He also received a one-time bonus of \$3,032,000 at the time he entered into the agreement. If any part of Mr. Burke's compensation payable with respect to any taxable year is not deductible by us by reason of the limitation contained in Section 162(m) of the Internal Revenue Code of 1986, we will only pay amounts to the extent deductible. Amounts not paid will be deferred until a later taxable year.

Stock Award. Under the terms of Mr. Burke's agreement, he received an award of 300,000 restricted shares of Class A Common Stock on January 12, 2004. 100,000 of these shares will vest on January 2, 2005, and 50,000 of these shares will vest on each of January 2, 2006, 2007, 2008 and 2009, subject to continued employment with us.

*Termination.* If we terminate Mr. Burke's employment without cause, he is entitled to receive his thencurrent base salary and all insurance, medical or other similar benefits for a period of two years from the date of termination, subject to offset by other compensation or benefits earned by him during such period, and he is entitled to receive his bonus for the year of termination. He is also entitled to receive any restricted shares that would have vested within the one-year period after termination. If Mr. Burke terminates his employment for good reason, he will receive the same benefits as he would have if we had terminated his employment without cause. If he resigns, he is entitled only to his base salary for days actually worked and any amounts due to him under our Deferred Compensation Plan. Noncompetition and Confidentiality. Mr. Burke has agreed not to compete with us during his employment and for one year after termination of his employment. The agreement also requires him to maintain the confidentiality of our information and not to use such information, except for our benefit, at all times during his employment and for a period of one year after termination of his employment.

Change of Control Provisions. Under the agreement, we must give Mr. Burke at least ten days' notice prior to the anticipated date of a change of control. Upon receipt of this notice, all options held by Mr. Burke will become immediately exercisable in full. Until the day before the date of a change of control, he will be able to exercise all such options. If the change of control is not consummated, the options will be treated as not having been exercised.

#### Employment Agreements with Messrs. Smith and Alchin

We have entered into employment agreements with Mr. Lawrence S. Smith, our Co-Chief Financial Officer and Executive Vice President and Mr. John R. Alchin, our Co-Chief Financial Officer, Executive Vice President and Treasurer. The following is a description of the material terms of these agreements.

Term. The term of the agreements is from May 31, 2000 through December 31, 2005.

*Base Salary*. The agreements with Messrs. Smith and Alchin provide for a base salary of \$825,000 and \$700,000, respectively, in 2001. In each case, for each year in the term subsequent to 2001, the base salary is increased by the greater of 5% or the percentage increase during the previous year in the consumer price index (up to a maximum of 10%).

*Bonus.* Each of the executives is eligible to receive an annual performance bonus under our Executive Cash Bonus Plan, commencing in 2000, of up to 50% of his base salary for the applicable year. The amount of the bonus is determined annually by the Compensation Committee, based on our and the executive's performance during such year, and is payable in cash or in shares of Class A Special Common Stock, at the discretion of the Compensation Committee. Each executive also participates in our Supplemental Cash Bonus Plan. If any part of the executive's compensation payable with respect to any taxable year is not deductible by us by reason of the limitation contained in Section 162(m) of the Internal Revenue Code of 1986, we will only pay amounts to the extent deductible. Amounts not paid will be deferred until a later taxable year.

*Termination.* If we terminate the executive's employment without cause, he is entitled to receive his thencurrent base salary and all insurance, medical or other similar benefits for a period of two years from the date of termination, subject to offset by other compensation or benefits earned by him during such period, and he is entitled to receive his bonus for the year of termination. If the executive resigns, he is entitled only to his base salary for days actually worked and any amounts due to him under our Deferred Compensation Plan.

Noncompetition and Confidentiality. Under each of the agreements, the executive has agreed not to compete with us during his employment and for one year after termination of his employment. The agreements also require each executive to maintain the confidentiality of our information and not to use such information, except for our benefit, at all times during his employment and for a period of one year after termination of his employment. Breach by the executive of any of these obligations constitutes cause for termination of the agreement and terminates our obligations for payments subsequent to his termination.

Change of Control Provisions. Under each of the agreements, we must give the executives at least 30 days' notice prior to the anticipated date of a change of control. Upon receipt of this notice, all options held by the executives will become immediately exercisable in full. Until the day before the date of a change of control, the executives will be able to exercise all such options. We will hold in escrow any shares received upon exercise, and the shares will be delivered to the executive only if he remains employed for the six-month period following the change of control. If the change of control is not consummated, the options will be treated as not having been exercised.

#### Employment Agreement with Mr. Cohen

We have entered into an employment agreement with Mr. David L. Cohen, one of our Executive Vice Presidents. The following is a description of the material terms of this agreement.

Term. The term of the agreement is from July 1, 2002 through January 2, 2006.

*Base Salary.* The agreement provides for an annual base salary of \$800,000 in 2002. For each year in the term subsequent to 2002, the base salary is increased by the greater of 5% or the percentage increase during the previous year in the consumer price index (up to a maximum of 10%).

*Bonus; Stock Awards.* Mr. Cohen is eligible to receive an annual performance bonus under our Executive Cash Bonus Plan for the year 2002 and each year through 2005 of up to 50% of his base salary for the applicable year. The amount of the bonus is determined annually by the Compensation Committee, based on our and Mr. Cohen's performance during such year, and is payable in cash or in shares of Class A Special Common Stock, at the discretion of the Compensation Committee. Mr. Cohen is also eligible to participate in our Supplemental Cash Bonus Plan. If any part of Mr. Cohen's compensation payable with respect to any taxable year is not deductible by us by reason of the limitation contained in Section 162(m) of the Internal Revenue Code of 1986, we will only pay amounts to the extent deductible. Amounts not paid will be deferred until a later taxable year.

Under the terms of the agreement, Mr. Cohen also received a grant of options to purchase 500,000 shares of Class A Special Common Stock on July 1, 2002, 30% of which will vest on the second anniversary of the date of grant, 15% of which will vest on each of the third through fifth anniversaries of the date of grant, 5% of which will vest on each of the sixth through ninth anniversaries of the date of grant and 5% of which will vest six months after the ninth anniversary. He also received an award of 20,000 restricted shares of Class A Special Common Stock, 5,000 of which vested or will vest on each of January 2, 2003, 2004, 2005 and 2006.

*Termination.* If we terminate Mr. Cohen's employment without cause, he is entitled to receive his thencurrent base salary and all insurance, medical or other similar benefits for a period of two years from the date of termination, subject to offset by other compensation or benefits earned by him during such period, and he is entitled to receive his bonus for the year of termination. In addition, all restricted shares granted under the agreement that are unvested at the time of termination will vest. If such termination occurs prior to the fourth anniversary of the date he commenced employment with us, any options granted under the agreement that would have vested during this four-year period will vest as of the date of termination and remain exercisable for the remainder of their original term.

Noncompetition and Confidentiality. Under the agreement, Mr. Cohen has agreed not to compete with us during his employment and for one year after termination of his employment. The agreement also requires Mr. Cohen to maintain the confidentiality of our information and not to use such information, except for our benefit, at all times during his employment and for a period of one year after termination of his employment. Breach by Mr. Cohen of any of these obligations constitutes cause for termination of the agreement and terminates our obligations for payments subsequent to his termination.

Change of Control Provisions. Under the agreement, we must give Mr. Cohen at least 30 days' notice prior to the anticipated date of a change of control. Upon receipt of this notice, all options held by Mr. Cohen will become immediately exercisable in full. Until the day before the date of a change of control, he will be able to exercise all such options. If the change of control is not consummated, the options will be treated as not having been exercised.

#### Employment Agreement with Mr. Armstrong

In connection with our acquisition of AT&T Corp.'s broadband business, we entered into an employment agreement dated November 18, 2002 with Mr. C. Michael Armstrong, our Non-Executive Chairman of the

Board. The employment agreement superceded the employment agreement between Mr. Armstrong and AT&T Corp., which we would have otherwise been obligated to assume under the terms of this acquisition. The following is a description of the material terms of the employment agreement.

*Term.* The term of the agreement is from November 18, 2002 to the date of our regularly scheduled 2005 annual meeting of shareholders.

*Position and Duties.* Pursuant to an election Mr. Armstrong made under the agreement, Mr. Armstrong became Non-Executive Chairman of the Board on May 7, 2003, the date of our 2003 annual meeting of shareholders.

*Base Salary.* The agreement provides that Mr. Armstrong will receive an annual base salary of \$1.8 million, which shall be reviewed annually for increase (but not reduced).

Bonus: Stock Awards. Mr. Armstrong is eligible to receive an annual performance bonus of not less than 150% of his base salary, commencing in 2003, subject to his meeting the performance goals established for the applicable year.

Under the terms of the agreement, on November 20, 2002, Mr. Armstrong was granted an option to purchase 2,400,000 shares of Class A Common Stock. With respect to stock-based awards held by Mr. Armstrong prior to his becoming employed by us, certain of these awards vested and were paid out as a result of our acquisition of AT&T Corp.'s broadband business. Awards which did not vest and which were converted into Comcast equity securities include performance shares granted in 2002, which will vest and be paid out in January 2005 as if all applicable performance targets associated with such award were met, and stock options granted on or after December 19, 2001, which will remain subject to their original vesting terms. An award of restricted stock units granted to Mr. Armstrong in 1997 vested on the date Mr. Armstrong became Non-Executive Chairman of the Board.

*Termination.* In the event of his death or disability, Mr. Armstrong's beneficiaries or estate will be entitled to his base salary through the end of the month of his death or disability, his annual incentive award for the year of death or disability (using the target bonus opportunity set for such year) and a lump sum payout for his then outstanding performance shares (which will be paid out as if all applicable performance targets associated with such award were met), restricted stock units and other equity-based awards. All outstanding unvested options will vest and, together with already vested options, will be exercisable for the remainder of their original terms, and restrictions on restricted stock will lapse. In addition, if Mr. Armstrong's employment is terminated as a result of disability, he will be entitled to receive disability benefits in accordance with our long-term disability program then in effect for senior executives.

In the event of a termination by us without cause or a constructive termination without cause, Mr. Armstrong will be provided with the following: base salary through the date of termination, a prorated annual incentive award for the year of termination (using the target bonus opportunity set for such year) and lump sum payout of all outstanding restricted stock units, performance shares (which will be paid out as if all applicable performance targets associated with such award were met) and other equity-based awards. If termination occurs prior to November 18, 2004, Mr. Armstrong will also be entitled to receive a lump sum cash amount equal to the greater of (1) three times the sum of his base salary, the annual incentive award established by AT&T Corp. for 2002 and the performance share target set by AT&T Corp. for 2002 and (2) four times the sum of his base salary and target bonus for the year in which termination occurs. If termination occurs after November 18, 2004, he will be entitled to the payments listed in (2) above. In addition, in each case, all outstanding unvested stock options will vest and, together with already vested options, will be exercisable for the remainder of their original terms, and restrictions on restricted stock will lapse. If Mr. Armstrong's employment is terminated on or prior to November 18, 2004, he will also be provided with financial counseling services for a two-year period following termination. In the event that any payments due to Mr. Armstrong under the agreement are subject to excise tax under Section 4999 of the Internal Revenue Code of 1986, we will provide Mr. Armstrong with a tax gross-up payment to negate the excise tax.

Noncompetition and Confidentiality. Under the agreement, Mr. Armstrong has agreed not to compete with us during his employment and for two years after termination of his employment. The agreement also requires him to maintain the confidentiality of our information at all times during his employment and after termination of his employment.

*Change in Control.* If Mr. Armstrong's employment is terminated following a change in control, the noncompetition provisions described above will terminate. In addition, all outstanding equity-based awards will vest and become exercisable and be paid out, as applicable.

*Election to Become a Consultant.* Under the terms of the employment agreement, if Mr. Armstrong retires from his position as Non-Executive Chairman of the Board prior to or at our 2004 annual meeting of shareholders, we are required to offer to enter into a consulting agreement with him.

The following is a description of the material terms of the form of consulting agreement.

*Term.* The term of the consulting agreement begins on the date that Mr. Armstrong retires from service and ends on the one year anniversary of our regularly scheduled 2005 annual meeting of shareholders.

*Position and Duties.* During the term, Mr. Armstrong will serve as a senior advisor and consultant to us and will perform such strategic consulting and advisory services as are mutually agreed upon by Mr. Armstrong and Mr. Brian L. Roberts or his designee. We have agreed to use our reasonable best efforts to ensure that Mr. Armstrong remains one of our directors through our 2005 annual meeting of shareholders.

*Compensation; Benefits.* The consulting agreement provides that Mr. Armstrong will receive an annual consultancy fee of \$900,000. In addition, in recognition of his retirement from employment with us and his position as Non-Executive Chairman of the Board prior to the end of the original term of the employment agreement, we will pay Mr. Armstrong the base salary and bonus amounts that would have been due to him had he remained employed by us through the original term of the employment agreement. Mr. Armstrong will be entitled to defer the receipt of amounts payable under the consulting agreement on substantially the same terms and conditions as if the amounts were earned while he was an employee participating in our Deferred Compensation Plan. Any amounts previously deferred by Mr. Armstrong will continue to be credited with the same rate of interest as in effect under our Deferred Compensation Plan with respect to the accounts of active employees, until the date that the consulting agreement is terminated.

Stock Awards. Performance shares and stock options that were held by Mr. Armstrong prior to his becoming employed by us and which were converted into Comcast equity securities as part of our acquisition of AT&T Corp.'s broadband business will vest and be paid out, as applicable, as of the date Mr. Armstrong becomes a consultant. Stock options granted to Mr. Armstrong in connection with his employment with us will continue to vest during the term of the consulting agreement and will become fully vested at the end of the term.

*Termination.* If his service is terminated due to his death or disability, he or his beneficiaries will be entitled to the consultancy fee through the end of the month of such death or disability and a lump sum payout of all performance shares (which will be paid out as if all applicable performance targets associated with such award were met). In addition, all outstanding unvested stock options will vest and will be exercisable for the remainder of their original terms. In the event of a termination by us without cause or a constructive termination without cause, Mr. Armstrong will be provided with the following: the consultancy fee through the date of termination, an amount equal to \$1,800,000 and a lump sum payout of all performance shares (which will be paid out as if all applicable performance targets associated with such award were met). In addition, he will be entitled to receive the severance amounts listed above in the description of his employment agreement with respect to terminations before or after November 18, 2004, and all outstanding unvested stock options will vest and will be exercisable for the remainder of their original terms.

Upon a termination of his service prior to the end of the term of the consulting agreement, Mr. Armstrong will also be entitled to tax preparation and financial counseling services, primary personal use of one of our

airplanes on the same economic terms as Mr. Brian L. Roberts and continued payment of premiums by us for his existing universal life insurance policy (together with a gross-up for income taxes), all through the original term of the consulting agreement, as well as use of his current office or a comparable office for the period beginning on the date of termination and ending two years after the end of the original term of the agreement.

Noncompetition. Under the consulting agreement, Mr. Armstrong has agreed not to compete with us during the term of the agreement.

The provisions in the form of consulting agreement regarding confidentiality and change of control (including payment of any excise tax) are the same as those contained in Mr. Armstrong's employment agreement.

#### Employment Agreement with Mr. Brodsky

We entered into an employment agreement with Mr. Julian A. Brodsky, our Vice Chairman. The following is a description of the material terms of the employment agreement, as amended.

Term. The term of the employment agreement is from May 1, 2002 to April 30, 2009.

*Positions and Duties.* From May 1, 2002 to April 30, 2004, Mr. Brodsky will continue to serve as one of our executive employees. From April 30, 2004 to April 30, 2009, Mr. Brodsky will be one of our non-executive employees. During the time he is an executive employee, he will devote substantially all of his working time to us. During the time that he is a non-executive employee, he will devote such time as is necessary for the performance of his duties, as we reasonably request.

*Base Salary*. The employment agreement provides that Mr. Brodsky will receive an annual base salary of \$837,560 in 2002, which base salary was increased on each of January 1, 2003 and January 1, 2004 by the greater of certain factors specified in the employment agreement. From May 1, 2004 to April 30, 2009, Mr. Brodsky will receive an annual base salary of \$600,000.

*Bonus.* For calendar years 2002, 2003 and a pro-rated portion of 2004, Mr. Brodsky is entitled to receive the maximum amount of his cash bonus under our Executive Cash Bonus Plan. He will not be entitled to participate in this plan after 2004.

SERP; Post-Retirement Programs; Split-Dollar Life Insurance Arrangements. Mr. Brodsky will be entitled to participate in our Supplemental Executive Retirement Plan and, if not terminated earlier, Mr. Brodsky's employment will be deemed to terminate on April 30, 2004 for purposes of this plan. At the end of the term, Mr. Brodsky will be eligible to participate in our post-retirement benefits plan for a number of years based upon his years of service with us. Upon termination of these post-retirement benefits, we will provide Mr. Brodsky and his wife, for the remainder of their lives, a medical plan to supplement Medicare and will reimburse Mr. Brodsky and his wife for amounts not paid or reimbursed by their health care plans so as to provide them with health care benefits equivalent to those available to our employees. We are required to continue all splitdollar life insurance arrangements, as in effect on the date of the employment agreement. As a result of certain recently enacted tax rules, however, we and Mr. Brodsky have agreed to terminate three of these policies. We have calculated the benefit we received as a result of terminating the policies prior to their original termination date and, in December 2003, we paid Mr. Brodsky a one-time bonus of \$4,114,254, which is the value of the benefit we received.

*CIC Funds.* Upon the earlier of the date that Mr. Brodsky is no longer one of our executive employees and his termination of employment for any reason other than cause, we will purchase his general partnership interest in Comcast Interactive Capital for a purchase price equal to the fair market value of the partnership's interest.

Termination of Employment. If Mr. Brodsky's employment is terminated due to his death, all outstanding stock options will vest and become exercisable for the remainder of their original terms, we will continue to pay

to his surviving spouse his then current annual base salary for five years or, if earlier, until the date of her death, and we will provide health care benefits until the date of her death. If his employment is terminated due to disability, we will continue to pay his then current annual base salary for five years or, if earlier, until April 30, 2009, certain executive perquisites will continue through this period, all outstanding stock options will vest and become exercisable for the remainder of their original terms and Mr. Brodsky will be entitled to participate in our post-retirement benefits plan based upon years of service with us. If Mr. Brodsky dies while receiving these benefits, we will provide benefits to his spouse as described above under termination due to death.

If we terminate Mr. Brodsky's employment without cause, Mr. Brodsky will be entitled to receive, for the remainder of the term, monthly payments of base salary (based on the highest annual base salary Mr. Brodsky received prior to his termination), amounts that would otherwise have been payable under our Executive Cash Bonus Plan and health care benefits, or, at his option, we will make available private health insurance and certain executive perquisites. In addition, all outstanding stock options will vest and become exercisable for the remainder of their original terms, and Mr. Brodsky will be reimbursed for the cost of obtaining office space and secretarial support for the remainder of the term comparable to what he had been provided while an employee. At the end of the term, he will be entitled to participate in our post-retirement benefits plan. If Mr. Brodsky dies while receiving these benefits, we will provide benefits to his spouse as described above under termination due to death.

If Mr. Brodsky retires, all outstanding stock options will vest and become exercisable for the remainder of their original terms, Mr. Brodsky will be entitled to participate in our post-retirement benefits plan based upon years of service with us, and he will continue to receive certain executive perquisites through the remainder of the term. Upon termination of Mr. Brodsky's employment at the end of the term, all outstanding stock options will vest and become exercisable for the remainder of their original terms.

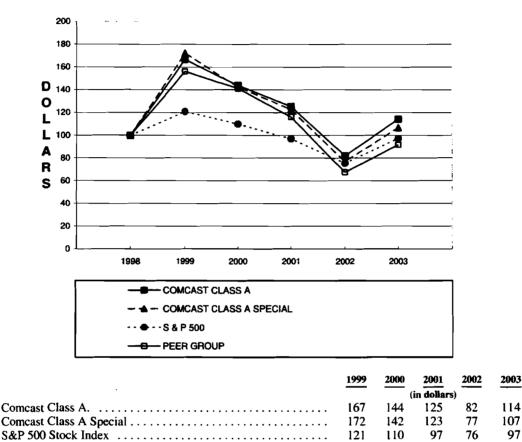
We also have entered into an agreement with Mr. Brodsky pursuant to which he (or, in the case of his death, his beneficiary) is entitled to a \$30,000 payment each year for 15 years commencing upon his termination of employment. Benefits under the agreement will be paid on a monthly basis. Any benefits received under this agreement reduce the benefits to which Mr. Brodsky is entitled under our Supplemental Executive Retirement Plan.

Noncompetition and Confidentiality. Under the employment agreement, Mr. Brodsky has agreed not to compete with us during his employment and for two years after termination of his employment for any reason other than a termination without cause. The employment agreement also requires him to maintain the confidentiality of our information and not to use such information, except for our benefit, at all times during his employment and after termination of his employment.

Change of Control Provisions. Prior to any change of control, we must establish and fund a grantor trust, the amounts in which will be subject to claims of our creditors in the case of our bankruptcy, for the purpose of paying all deferred compensation, nonqualified retirement benefits and split-dollar life insurance premiums and bonuses for Mr. Brodsky then applicable. Upon the occurrence of a change of control, such trust must become irrevocable, and we must continue to make payments into such trust to maintain sufficient amounts to fund all benefits subject to the trust. While our acquisition of AT&T Corp.'s broadband business in November 2002 was a change of control under the agreement, Mr. Brodsky elected to waive his right to have us fund the trust at that time; however, Mr. Brodsky may exercise this right at any time by providing notice to us.

#### **Stock Performance Graph**

The following graph compares the yearly percentage change in the cumulative total shareholder return on our Class A Common Stock and Class A Special Common Stock during the five years ended December 31, 2003 with the cumulative total return on the Standard & Poor's 500 Stock Index and with a selected peer group consisting of us and other companies engaged in the cable communications industry. The peer group consists of Cablevision Systems Corporation (Class A), Cox Communications, Inc. and Charter Communications, Inc. (Class A). The comparison assumes \$100 was invested on December 31, 1998 in our Class A Common Stock and Class A Special Common Stock and in each of the foregoing indices and assumes the reinvestment of dividends.



# **COMPARISON OF FIVE YEAR CUMULATIVE TOTAL RETURN**

Report of the Compensation Committee	Report o	the Com	pensation	Committee
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Peer Group Index .....

The Compensation Committee is responsible for determining the nature and amount of compensation to be paid to Comcast's executive officers, establishing and evaluating performance-based criteria and goals related to compensation, administering Comcast's equity-based and cash bonus plans, making grants of awards under these plans, approving employment agreements with Mr. Brian L. Roberts and Comcast's other executive officers and determining and overseeing Comcast's compensation and benefits policies generally. Our members are "independent directors" (as defined under Nasdaq rules), "non-employee directors" (as defined in Rule 16b-3 promulgated under Section 16 of the Securities and Exchange Act of 1934) and "outside directors" (as defined in Section 162(m) of the Internal Revenue Code of 1986).

141

156

116

68

92

Compensation Policy. Our primary goal when assessing compensation alternatives is to attract and retain highly qualified executive officers and key employees in an effort to enhance shareholder value. We intend to realize this goal by ensuring that Comcast provides competitive compensation and by permitting executive officers and key employees to take an ownership stake in the company commensurate with their relative levels of seniority and responsibility. We perform a general review each year of executive compensation matters, utilizing the services of an independent compensation consultant.

With respect to 2003, our general goal was to provide the executive officers with total compensation that, based on individual and company performance over an appropriate period of time, was generally between the 50<sup>th</sup> and 75<sup>th</sup> percentile of total compensation for executives with comparable positions at peer group companies.

The total compensation of Comcast's executive officers in 2003 was primarily determined pursuant to their employment agreements and awards under Comcast's equity-based incentive and cash bonus plans, as described below. A portion of the overall compensation of Mr. Ralph J. Roberts had been derived from split-dollar life insurance policies and term insurance policies. Due to considerations raised by the Sarbanes-Oxley Act of 2002, Comcast ceased paying the premiums associated with Mr. Roberts' split-dollar insurance policies as of July 30, 2002.

In 2003, we sought to achieve a mix of the various forms of compensation noted above to properly compensate and motivate the executives on an individual basis commensurate with their relative levels of seniority and responsibility. We considered a variety of factors in arriving at the amount and mix of compensation paid or awarded to the executive officers. Key factors were the performance of Comcast measured primarily by the achievement of quantitative goals, the respective roles of the individuals in the successful integration of the acquired AT&T Broadband cable systems and the executive officers' individual responsibility and role with respect to overall corporate policy-making, management and administration. We did not assign any specific weighting, however, to any of these factors in determining the remuneration paid or awarded to the named executive officers for 2003.

We believe that Comcast's competitors for executive talent are comprised of a broader range of companies than those with which Comcast would ordinarily be compared for stock performance purposes, including large premier companies and entertainment companies. Thus, the compensation comparison group also included companies that are not included in the peer group index in the stock performance graph above.

Base Salary. Our and Comcast's philosophy with respect to setting base salary is generally to compensate executive officers with reasonable current income on a competitive basis. The base salaries of all executive officers were increased in November 2002 in connection with the closing of Comcast's acquisition of AT&T Corp.'s broadband business, to recognize the increased responsibilities then placed on the executive officers as a result of Comcast's increased size and scope of operations. In light of this late 2002 increase, base salaries were not increased in 2003.

*Bonuses.* Annual cash bonuses for executive officers were granted under Comcast's 2002 Executive Cash Bonus Plan and 2002 Supplemental Cash Bonus Plan, each of which was recommended by, and designed in consultation with, an independent compensation consultant and previously approved by Comcast shareholders.

Under the Executive Cash Bonus Plan, each executive designated by us was eligible to earn an annual bonus of up to 150% of the sum of his or her base salary and any unearned bonus from any prior plan year, but not more than \$3 million, based on quantitative annual cash flow performance targets we established in advance. We selected increases in cash flow as the single most significant measure of Comcast's overall operating performance. Under the Supplemental Cash Bonus Plan, each executive designated by us was eligible to earn an annual bonus of a percentage of his or her base salary, but no more than \$5 million, based on annual quantitative and qualitative performance targets we established in advance. The performance targets for 2003 were operating cash flow, basic cable subscribers, high speed data subscribers, customer telephone call answering time, digital cable and telephony service profitability, quality of management improvement and diversity of workforce improvement, and are fully described in Comcast's Proxy Statement for the 2003 Annual Meeting of Shareholders, under the description of Proposal Two (D). The purpose of the Supplemental Cash Bonus Plan is to provide senior management with an incentive to accomplish such specific business objectives as from time to time may be established by us, including in 2003 the integration of the AT&T Broadband cable systems.

The target bonus for each of the named executive officers under these plans is based on our assessment of the optimal mix of base and bonus cash compensation, made with the assistance of the independent compensation consultant. In 2003, the target bonus for Mr. Brian L. Roberts and Mr. Armstrong under the Executive Cash Bonus Plan was 150%, and the target bonus for the other named executive officers was 50%. The target bonus for Mr. Brian L. Roberts under the Supplemental Cash Bonus Plan was 150%, and the target bonus for the other named executive officers (other than Mr. Armstrong) was 50%. Mr. Armstrong did not receive a supplemental cash bonus in 2003. Based on Comcast's results, 100% of the target bonuses were earned for 2003 under these plans.

Equity-Based Incentive Compensation. Comcast's equity-based incentive compensation is in the form of stock options and awards of restricted stock. We believe that reliance upon these types of incentives is advantageous to Comcast because they foster a long-term commitment by the recipients and motivate the recipients to seek to improve the long-term market performance of the company's stock. In 2003, neither Mr. Brian L. Roberts nor any of the named executive officers received any grants of restricted stock.

We seek to achieve these long-term objectives in part by extending the vesting period for options and restricted stock over a longer time period than is the case with many other companies. For example, with respect to the options granted to Mr. Brian L. Roberts and the other executive officers during 2003, generally just over half of each individual's options vests over five years and the balance vests over a period of nine years and six months. Stock options produce value to the executive officers only if the price of Comcast's stock appreciates, thereby directly linking the interests of the executive officers with those of Comcast's shareholders. In general, option grants are based on a proportional relationship to the expected cash compensation of the option recipients, taking into account prior option grants and grants made at the same time to other Comcast executives.

Compensation of Mr. Brian L. Roberts. Mr. Brian L. Roberts' compensation for 2003 was determined under the terms of his employment agreement (a summary of the material terms of this agreement can be found under "Agreements with Executive Officers---Compensation Agreement with Mr. Brian L. Roberts"). The levels of compensation provided under this agreement were determined when such agreement was entered into and at the time of its subsequent amendment, based on our and our predecessor's review, as applicable, and the review and analysis of the independent compensation consultant. This consultant considered the compensation levels of chief executive officers at peer group companies. In approving the compensation agreement and the amendment to it, we or our predecessor also took into account an assessment of the importance of maintaining the continued active participation of Mr. Roberts in Comcast's affairs over the periods covered by the agreement, Comcast's growth and overall performance during these periods, the increased responsibilities of Mr. Roberts following Comcast's acquisition of AT&T Corp.'s broadband business and his prior compensation levels.

Mr. Roberts' compensation in 2003 consisted of the salary and benefits as determined under his employment agreement, short-term incentive compensation consisting of awards under the Executive Cash Bonus Plan and Supplemental Cash Bonus Plan described above and long-term incentive compensation consisting of a grant of options under Comcast's stock option plans to purchase a total of 950,100 shares of Class A Common Stock. In determining Mr. Roberts' short-term incentive awards, we set target bonuses based on the achievement of a specific quantitative performance measure (in the case of the Executive Case Bonus Plan) and specific quantitative and qualitative performance measures (in the case of the Supplemental Cash Bonus Plan). 80% of the value of the award under the Supplemental Cash Bonus Plan was based on achievement of the specific quantitative performance measures described above. In determining Mr. Roberts' long-term incentive award, we took into account our goal for total compensation to Mr. Roberts relative to executives with comparable positions at peer group companies.

Effect of Internal Revenue Code Section 162(m). Section 162(m) of the Internal Revenue Code of 1986 provides that certain compensation in excess of \$1 million paid to the chief executive officer and the other four most highly compensated executive officers of a public company (determined as of the last day of the company's tax year) will not be deductible for federal income tax purposes. We conduct an ongoing review of Comcast's compensation practices for purposes of obtaining the maximum continued deductibility of compensation paid consistent with Comcast's existing commitments and ongoing competitive needs. While the tax impact of any

compensation arrangement is one factor to be considered, such impact is evaluated in light of our and Comcast's overall compensation philosophy. From time to time, we may award compensation which is not fully deductible if we determine that such award is consistent with this philosophy and is in the best interests of Comcast and its shareholders.

#### **Members of the Compensation Committee**

S. Decker Anstrom (Chair) Joseph L. Castle, II Dr. Judith Rodin Michael I. Sovern

# SHAREHOLDER PROPOSALS FOR NEXT YEAR

Any shareholder proposals intended to be presented at our annual meeting of shareholders in 2005 called for a date between April 26, 2005 and June 27, 2005 and considered for inclusion in our proxy materials must be received by December 13, 2004. Any shareholder proposals should be directed to Arthur R. Block, Secretary, at our address listed on page 3 of this proxy statement. However, shareholders who wish to nominate directors for election must comply with the procedures described under "About the Board and its Committees" on page 9 of this proxy statement.

Any shareholder proposals intended to be presented at our annual meeting of shareholders in 2005 and not included in our proxy materials must comply with the advance notice provision in Section 2.09 of our by-laws. In the case of an annual meeting called for a date between April 26, 2005 and June 27, 2005, we must receive notice of the proposal on or after February 25, 2005 and on or before March 28, 2005. In the case of an annual meeting called for any other date, we must receive notice of the proposal by the close of business on the tenth day following the day we mailed notice of, or announced publicly, the date of the meeting, whichever occurs first. If notice is not received during the specified period, the shareholder proposals will be deemed "untimely." Shareholder proposals failing to comply with the procedures of Rule 14a-8 will be excluded. All shareholder proposals should be directed to Arthur R. Block, Secretary, at our address listed on page 3 of this proxy statement.

## SOLICITATION OF PROXIES

We will pay the cost of this proxy solicitation. In addition to soliciting proxies by mail, we expect that a number of our employees will solicit shareholders for the same type of proxy, personally and by telephone. None of these employees will receive any additional or special compensation for doing this. We have retained D.F. King & Co., Inc. to assist in the solicitation of proxies for a fee of \$18,000 plus reasonable out-of-pocket costs and expenses. We will, on request, reimburse banks, brokerage firms and other nominees for their expenses in sending proxy materials to their customers who are beneficial owners of our common stock and obtaining their voting instructions.

#### **Electronic Access to Proxy Materials and Annual Report**

Shareholders can access the Notice of Annual Meeting and Proxy Statement and Annual Report via our website at www.cmcsa.com or www.cmcsk.com. For future shareholder meetings, registered shareholders can consent to accessing their proxy statement and annual report electronically. If you are a registered shareholder and you have not already done so, you can choose this option by marking the "Electronic Access" box on the proxy card or by following the instructions provided when voting via the Internet or by telephone. If you choose

this option, prior to each shareholder meeting you will receive in the mail your proxy card that provides a notice of meeting with a business reply envelope. You do not need to select this option each year; however, you may want to choose this option for more than one account held in your name. Your choice will remain in effect unless you revoke it by contacting our transfer agent, EquiServe, at 1-888-883-8903 or visiting EquiServe's website at www.econsent.com/cmcsa. Shareholders who hold shares through a bank, brokerage firm or other nominee may request electronic access by contacting their nominee.

## **IMPORTANT NOTICE REGARDING DELIVERY OF SECURITY HOLDER DOCUMENTS**

Under the Securities and Exchange Commission rules, delivery of one proxy statement and annual report to two or more investors sharing the same mailing address is now permitted, under certain conditions. This procedure, called "householding," is available to you if all of the following criteria are met:

- (1) You have the same address as other security holders registered on our books;
- (2) You have the same last name as the other security holders; and
- (3) Your address is a residential address or post office box.

If you meet this criteria, you are eligible for householding and the following terms apply. If you are not eligible, please disregard this notice.

#### **For Registered Shareholders**

Only one proxy statement and annual report will be delivered to the shared mailing address. You will, however, still receive separate mailings of important and personal information, as well as a separate proxy card.

## What do I need to do to receive just one set of annual disclosure materials?

You do not have to do anything. Unless EquiServe is notified otherwise within 60 days of the mailing of this notice, your consent is implied and only one set of materials will be sent to your household. This consent is considered perpetual, which means you will continue to receive a single proxy statement/annual report in the future unless you tell us otherwise.

#### What if I want to continue to receive multiple sets of materials?

If you would like to continue to receive a separate set of materials for yourself, call or write EquiServe at 1-888-883-8903 or P.O. Box 43091, Providence, Rhode Island 02940-3091. A separate set of materials will be sent to you promptly.

#### What if I consent to have one set of materials mailed now, but change my mind later?

Call or write EquiServe to turn off the householding instructions for yourself. You will then be sent a separate proxy statement and annual report within 30 days of receipt of your instruction.

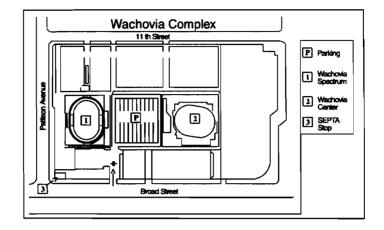
# The reason I receive multiple sets of materials is because some of the stock belongs to my children. What happens when they move out and no longer live in my household?

When there is an address change for one of the members of the household, materials will be sent directly to the shareholder at his or her new address.

# **ANNUAL REPORT ON FORM 10-K**

WE WILL PROVIDE WITHOUT CHARGE TO EACH PERSON SOLICITED BY THIS PROXY STATEMENT, ON THE WRITTEN REQUEST OF SUCH PERSON, A COPY OF OUR ANNUAL REPORT ON FORM 10-K, AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION FOR OUR MOST RECENT FISCAL YEAR. SUCH WRITTEN REQUESTS SHOULD BE DIRECTED TO "INVESTOR RELATIONS" AT OUR ADDRESS SET FORTH ON PAGE 3 OF THIS PROXY STATEMENT.

# DIRECTIONS TO THE WACHOVIA COMPLEX



From New Jersey via the Walt Whitman Bridge— Follow the signs for Broad Street. At the end of the Broad Street ramp, turn left and follow the signs to the Sports Complex. The Wachovia Complex will be on your left.

From Interstate 476/Blue Route—Take I-476 South to the end. Follow signs for I-95 North, Philadelphia. Take I-95 North to Broad Street exit. The Wachovia Complex will be on your right.

**Public Transportation**—SEPTA (Southeastern Pennsylvania Transport Authority). Take the Broad Street (Orange) line South to the Pattison Ave. stop (last stop). When you exit the subway, the Wachovia Complex will be immediately to the east. From Interstate 76/Schuylkill Expressway— Traveling East, follow the signs for South Jersey, Walt Whitman Bridge and Sports Complex. At the bottom of the exit ramp, make a right onto Broad Street. The Wachovia Complex will be on your left.

**From Interstate 95**—From I-95 Northbound or Southbound, take the Broad Street exit. The Wachovia Complex will be on your right.

**Parking Information**—There is ample free parking available in the Wachovia Complex. Shareholders should use the main entrance to the Wachovia Complex which is located on Broad Street at 3601 South Broad Street. The gate attendant will direct you to the parking area and building.

# Appendix A

# COMCAST CORPORATION

#### Audit Committee Charter

## I. Purpose

The principal purpose of the Audit Committee (the "Committee") is to assist the Board of Directors (the "Board") in fulfilling its responsibility to oversee management's conduct of the Company's financial reporting process by, among other things, reviewing significant financial reports and other financial information provided by the Company to any governmental or regulatory body, the public or others, the Company's systems of internal accounting and financial controls, and the annual independent audit of the Company's financial statements.

In discharging its oversight role, the Committee is empowered to address any matter brought to its attention with full access to all books, records, facilities and personnel of the Company and the power to retain outside counsel, outside auditors or other experts for this purpose.

The Committee shall review the adequacy of this Charter on an annual basis.

## II. Membership

The Committee shall be comprised of no fewer than three members of the Board, one of whom shall be appointed by the Board as the Committee's chairperson. The Committee's composition shall meet the requirements of the rules of the National Association of Securities Dealers, Inc., through its Nasdaq Stock Market, Inc. ("Nasdaq") subsidiary. All of the members shall be directors who, except as may otherwise be permitted under the Nasdaq rules, have no relationship to the Company that may interfere with the exercise of their independence from management and the Company. Each member of the Committee shall be financially literate or become financially literate within a reasonable period of time after appointment to the Committee, and at least one member of the Committee shall have accounting or related financial management expertise, as the foregoing qualifications are interpreted by the Board in its business judgment.

## III. Key Responsibilities

The Committee is to serve in an oversight capacity and is not intended to be part of the Company's operational or managerial decision-making process. The Company's management is responsible for preparing the Company's financial statements and the outside auditors are responsible for auditing the financial statements. Additionally, the Committee recognizes that the Company's financial management, including the internal audit staff, as well as the Company's outside auditors, have more time, knowledge and detailed information concerning the Company than do Committee members; consequently, in carrying out its oversight responsibilities, the Committee is not providing any expert or special assurance as to the Company's financial statements or any certification as to the outside auditors' work.

Consistent with the above, the Committee shall:

- Provide an open avenue of communication among management, the internal audit staff, the outside auditors and the Board.
- Review with management and the outside auditors the audited financial statements to be included in the Company's Annual Report on Form 10-K (or the Annual Report to Shareholders, if distributed prior to the filing of the Form 10-K), and recommend to the Board of Directors the approval for inclusion in such Report, prior to their filing with the Securities and Exchange Commission (or prior to such distribution, if earlier) and, in connection therewith, review and consider with the outside auditors the matters required to be discussed by Statement of Auditing Standards ("SAS") No. 61, as it may be modified or supplemented.

- Either on its own or through its chairperson, review with the outside auditors, prior to the Company's filing of each quarterly report on Form 10-Q with the Securities and Exchange Commission, the Company's interim financial statements to be included in such Form 10-Q and the matters required to be discussed by SAS No. 71, as it may be modified or supplemented.
- Discuss with management, the internal audit staff, and the outside auditors the quality and adequacy of the Company's internal accounting and financial controls.
- Receive from the outside auditors annually a formal written statement delineating all relationships between the outside auditors and the Company consistent with Independence Standards Board Standard No. 1.
- Discuss with the outside auditors any disclosed relationships or services contained in the formal written statement received from the outside auditors that may impact the objectivity and independence of the outside auditors.
- Take, or recommend that the Board take, appropriate action to oversee the independence of the outside auditors.

The outside auditors are ultimately accountable to the Board and the Committee, as representatives of the Company's shareholders, and these shareholder representatives have the ultimate authority and responsibility to select, evaluate, review and approve fees to be paid to, and, where appropriate, replace the outside auditors (or to nominate the outside auditors to be proposed for shareholder approval in any proxy statement).

## Appendix B

## **COMCAST CORPORATION**

# 2002 RESTRICTED STOCK PLAN

# (As Amended And Restated, Effective February 24, 2004)

#### 1. BACKGROUND AND PURPOSE

COMCAST CORPORATION, a Pennsylvania corporation, hereby amends and restates the Comcast Corporation 2002 Restricted Stock Plan (the "Plan"), effective February 24, 2004. The purpose of the Plan is to promote the ability of Comcast Corporation to recruit and retain employees and enhance the growth and profitability of Comcast Corporation by providing the incentive of long-term awards for continued employment and the attainment of performance objectives.

#### 2. DEFINITIONS

(a) "Acceleration Election" means a written election on a form provided by the Committee, filed with the Committee in accordance with Paragraphs 8(d)(ii) or 8(d)(iii), pursuant to which a Deceased Grantee's Successor-in-Interest or a Disabled Grantee elects to accelerate the distribution date of Shares issuable with respect to Restricted Stock and/or Restricted Stock Units.

(b) "Account" means unfunded bookkeeping accounts established pursuant to Paragraph 8(e) and maintained by the Committee in the names of the respective Grantees (i) to which Deferred Stock Units are deemed credited and (ii) to which an amount equal to the Fair Market Value of Deferred Stock Units with respect to which a Diversification Election has been made and interest thereon are deemed credited, reduced by distributions in accordance with the Plan.

(c) "Active Grantee" means each Grantee who is actively employed by a Participating Company.

(d) "Affiliate" means, with respect to any Person, any other person that, directly or indirectly, is in control of, is controlled by, or is under common control with, such Person. For purposes of this definition, the term "control," including its correlative terms "controlled by" and "under common control with," mean, with respect to any Person, the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

(e) "Annual Rate of Pay" means, as of any date, an employee's annualized base pay rate. An employee's Annual Rate of Pay shall not include sales commissions or other similar payments or awards.

- (f) "Applicable Interest Rate" means:
  - (i) Except as otherwise provided in Paragraph (f)(ii), the Applicable Interest Rate means the interest rate that, when compounded annually pursuant to rules established by the Committee from time to time, is mathematically equivalent to 8% per annum, compounded annually, or such other interest rate established by the Committee from time to time. The effective date of any reduction in the Applicable Interest Rate shall not precede the later of: (A) the 30th day following the date of the Committee's action to establish a reduced rate; or (B) the lapse of 24 full calendar months from the date of the most recent adjustment of the Applicable Interest Rate by the Committee.
  - (ii) Effective for the period extending from a Grantee's employment termination date to the date the Grantee's Account is distributed in full, the Committee, in its sole and absolute discretion, may designate the term "Applicable Interest Rate" for such Grantee's Account to mean the lesser of:

     (A) the rate in effect under Paragraph (f)(i) or (B) the interest rate that, when compounded

annually pursuant to rules established by the Committee from time to time, is mathematically equivalent to the Prime Rate plus one percent, compounded annually as of the last day of the calendar year. Notwithstanding the foregoing, the Committee may delegate its authority to determine the Applicable Interest Rate under this Paragraph (ii) to an officer of the Company or committee of two or more officers of the Company.

(g) "AT&T Broadband Transaction" means the acquisition of AT&T Broadband Corp. (now known as Comcast Cable Communications Holdings, Inc.) by the Company.

(h) "Award" means an award of Restricted Stock or Restricted Stock Units granted under the Plan.

(i) "Board" means the Board of Directors of the Company.

(j) "Change of Control" means any transaction or series of transactions as a result of which any Person who was a Third Party immediately before such transaction or series of transactions owns then-outstanding securities of the Company such that such Person has the ability to direct the management of the Company, as determined by the Board in its discretion. The Board may also determine that a Change of Control shall occur upon the completion of one or more proposed transactions. The Board's determination shall be final and binding.

(k) "Code" means the Internal Revenue Code of 1986, as amended.

(1) "Comcast Plan" means any restricted stock, restricted stock unit, stock bonus, stock option or other compensation plan, program or arrangement established or maintained by the Company or an Affiliate, including but not limited to this Plan, the Comcast Corporation 2003 Stock Option Plan, the Comcast Corporation 2002 Stock Option Plan, the Comcast Corporation 1996 Stock Option Plan, Comcast Corporation 1987 Stock Option Plan and the Comcast Corporation 2002 Deferred Stock Option Plan.

(m) "Committee" means the Compensation Committee of the Board.

(n) "Common Stock" means Class A Common Stock, par value \$0.01, of the Company.

(o) "<u>Company</u>" means Comcast Corporation, a Pennsylvania corporation, as successor to Comcast Holdings Corporation (formerly known as Comcast Corporation), including any successor thereto by merger, consolidation, acquisition of all or substantially all the assets thereof, or otherwise.

(p) "Company Stock Fund" means a hypothetical investment fund pursuant to which Deferred Stock Units are credited with respect to a portion of an Award subject to an Election, and thereafter until (i) the date of distribution or (ii) the effective date of a Diversification Election, to the extent a Diversification Election applies to such Deferred Stock Units, as applicable. The portion of a Participant's Account deemed invested in the Company Stock Fund shall be treated as if such portion of the Account were invested in hypothetical shares of Common Stock or Special Common Stock otherwise deliverable as Shares upon the Vesting Date associated with Restricted Stock or Restricted Stock Units, and all dividends and other distributions paid with respect to Common Stock or Special Common Stock were held uninvested in cash and credited with interest at the Applicable Interest Rate as of the next succeeding December 31 (to the extent the Account continues to be deemed credited in the form of Deferred Stock Units through such December 31).

(q) "Date of Grant" means the date on which an Award is granted.

(r) "Deceased Grantee" means:

- (i) a Grantee whose employment by a Participating Company is terminated by death; or
- (ii) a Grantee who dies following termination of employment by a Participating Company.

- (s) "Deferral Eligible Employee" means:
  - (i) An Eligible Employee whose Annual Rate of Pay is \$200,000 or more as of both: (i) the date on which an Initial Election is filed with the Committee; and (ii) the first day of the calendar year in which such Initial Election filed.
  - (ii) An Eligible Employee whose Annual Rate of Pay is \$125,000 as of each of: (A) June 30, 2002;
    (B) the date on which an Initial Election is filed with the Committee: and (C) the first day of each calendar year beginning after December 31, 2002.
  - (iii) Each New Key Employee.
  - (iv) Each other employee of a Participating Company who is designated by the Committee, in its sole and absolute discretion, as a Deferral Eligible Employee.
- (t) "Deferred Stock Units" means the number of hypothetical Shares subject to an Election.
- (u) "Disabled Grantee" means:
  - (i) a Grantee whose employment by a Participating Company is terminated by reason of disability;
  - (ii) a Grantee who becomes disabled (as determined by the Committee) following termination of employment by a Participating Company; or
  - (iii) the duly-appointed legal guardian of an individual described in Paragraph 2(u)(i) or 2(u)(ii) acting on behalf of such individual.

(v) "Diversification Election" means a Grantee's election to have a portion of the Grantee's Account credited in the form of Deferred Stock Units and attributable to any grant of Restricted Stock or Restricted Stock Units deemed liquidated and credited thereafter under the Income Fund, as provided in Paragraph 8(g).

- (w) "Election" means, as applicable, an Initial Election, a Subsequent Election. or an Acceleration Election.
- (x) "Eligible Employee" means an employee of a Participating Company, as determined by the Committee.
- (y) "Fair Market Value" means:
  - (i) If Shares are listed on a stock exchange, Fair Market Value shall be determined based on the last reported sale price of a Share on the principal exchange on which Shares are listed on the date of determination, or if such date is not a trading day, the next trading date.
  - (ii) If Shares are not so listed, but trades of Shares are reported on the Nasdaq National Market, Fair Market Value shall be determined based on the last quoted sale price of a Share on the Nasdaq National Market on the date of determination, or if such date is not a trading day, the next trading date.
  - (iii) If Shares are not so listed nor trades of Shares so reported, Fair Market Value shall be determined by the Committee in good faith.
- (z) "Grantee" means an Eligible Employee who is granted an Award.

(aa) "Income Fund" means a hypothetical investment fund pursuant to which an amount equal to the Fair Market Value of Deferred Stock Units subject to a Diversification Election is credited as of the effective date of such Diversification Election and as to which interest is credited thereafter until the date of distribution at the Applicable Interest Rate.

(bb) "Initial Election" means a written election on a form provided by the Committee, filed with the Committee in accordance with Paragraph 8(a), pursuant to which a Grantee: (i) elects, within the time or times specified in Paragraph 8(a), to defer the distribution date of Shares issuable with respect to Restricted Stock or Restricted Stock Units; and (ii) designates the distribution date of such Shares.

(cc) "<u>New Key Employee</u>" means each employee of a Participating Company who: (i) becomes an employee of a Participating Company and has an Annual Rate of Pay of \$200,000 or more as of his employment commencement date; or (ii) has an Annual Rate of Pay that is increased to \$200,000 or more and who, immediately preceding such increase, was not a Deferral Eligible Employee.

(dd) "Normal Retirement" means a Grantee's termination of employment that is treated by the Participating Company as a retirement under its employment policies and practices as in effect from time to time.

- (ee) "Other Available Shares" means, as of any date, the sum of:
  - (i) the total number of Shares owned by a Grantee that were not acquired by such Grantee pursuant to a Comcast Plan or otherwise in connection with the performance of services to the Company or an Affiliate; plus
  - (ii) the excess, if any, of:
    - (1) the total number of Shares owned by a Grantee other than the Shares described in Paragraph 2(ee)(i); over
    - (2) the sum of:
      - (A) the number of such Shares owned by such Grantee for less than six months; plus
      - (B) the number of such Shares owned by such Grantee that has, within the preceding six months, been the subject of a withholding certification pursuant to Paragraph 9(c)(ii) or any similar withholding certification under any other Comcast Plan; plus
      - (C) the number of such Shares owned by such Grantee that has, within the preceding six months, been received in exchange for Shares surrendered as payment, in full or in part, or as to which ownership was attested to as payment, in full or in part, of the exercise price for an option to purchase any securities of the Company or an Affiliate of the Company, under any Comcast Plan, but only to the extent of the number of Shares surrendered or attested to; plus
      - (D) the number of such Shares owned by such Grantee as to which evidence of ownership has, within the preceding six months, been provided to the Company in connection with the crediting of "Deferred Stock Units" to such Grantee's Account under the Comcast Corporation 2002 Deferred Stock Option Plan (as in effect from time to time).

For purposes of this Paragraph 2(ee), a Share that is subject to an Election pursuant to Paragraph 8 or a deferral election pursuant to another Comcast Plan shall not be treated as owned by a Grantee until all conditions to the delivery of such Share have lapsed. The number of Other Available Shares shall be determined separately for Common Stock and Special Common Stock. For purposes of determining the number of Other Available Shares, the term "Shares" shall also include the securities held by a Participant immediately before the consummation of the AT&T Broadband Transaction that became Shares as a result of the AT&T Broadband Transaction.

(ff) "Participating Company" means the Company and each of the Subsidiary Companies.

(gg) "<u>Person</u>" means an individual, a corporation, a partnership, an association, a trust or any other entity or organization.

(hh) "Plan" means the Comcast Corporation 2002 Restricted Stock Plan, as set forth herein, and as amended from time to time.

(ii) "Plan Year" means the 365-day period (or the 366-day period) extending from January 3 to the next following January 2.

(jj) "Prime Rate" means, for any calendar year, the interest rate that, when compounded daily pursuant to rules established by the Committee from time to time, is mathematically equivalent to the prime rate of interest (compounded annually) as published in the Eastern Edition of The Wall Street Journal on the last business day preceding the first day of such calendar year, and as adjusted as of the last business day preceding the first day of each calendar year beginning thereafter.

(kk) "Restricted Stock" means Shares subject to restrictions as set forth in an Award.

(II) "<u>Restricted Stock Unit</u>" means a unit that entitles the Grantee, upon the Vesting Date set forth in an Award, to receive one Share.

(mm) "Retired Grantee" means a Grantee who has terminated employment pursuant to a Normal Retirement.

- (nn) "Rule 16b-3" means Rule 16b-3 promulgated under the 1934 Act, as in effect from time to time.
- (oo) "Share" or "Shares" means:
  - (i) except as provided in Paragraph 2(00)(ii), a share or shares of Common Stock.
  - (ii) with respect to Awards granted before the consummation of the AT&T Broadband Transaction as to which a Vesting Date has not occurred, and for purposes of Paragraphs 2(ee) and 9(c), the term "Share" or "Shares" also means a share or shares of Special Common Stock.
- (pp) "Special Common Stock" means Class A Special Common Stock, par value \$0.01, of the Company.

(qq) "<u>Special Diversification Election</u>" means, with respect to each separate grant of Restricted Stock or Restricted Stock Units, a Diversification Election by a Grantee to have more than 40 percent of the Deferred Stock Units credited to such Grantee's Account in the Company Stock Fund liquidated and credited thereafter under the Income Fund, as provided in Paragraph 8(g)(i), if (and to the extent that) it is approved by the Committee in accordance with Paragraph 8(g)(ii).

(rr) "Subsequent Election" means a written election on a form provided by the Committee, filed with the Committee in accordance with Paragraph 8(d), pursuant to which a Grantee: (i) elects, within the time or times specified in Paragraph 8(d), to further defer the distribution date of Shares issuable with respect to Restricted Stock or Restricted Stock Units; and (ii) designates the distribution date of such Shares.

(ss) "Subsidiary Companies" means all business entities that, at the time in question, are subsidiaries of the Company, within the meaning of section 424(f) of the Code.

(tt) "Successor-in-Interest" means the estate or beneficiary to whom the right to payment under the Plan shall have passed by will or the laws of descent and distribution.

- (uu) "Terminating Event" means any of the following events:
  - (i) the liquidation of the Company; or
  - (ii) a Change of Control.

(vv) "<u>Third Party</u>" means any Person, together with such Person's Affiliates. provided that the term "Third Party" shall not include the Company or an Affiliate of the Company.

(ww) "Vesting Date" means, as applicable: (i) the date on which the restrictions imposed on a Share of Restricted Stock lapse or (ii) the date on which the Grantee vests in a Restricted Stock Unit.

- (xx) "1933 Act" means the Securities Act of 1933, as amended.
- (yy) "1934 Act" means the Securities Exchange Act of 1934, as amended.

#### 3. RIGHTS TO BE GRANTED

Rights that may be granted under the Plan are: (a) rights to Restricted Stock which gives the Grantee ownership rights in the Shares subject to the Award, subject to a substantial risk of forfeiture, as set forth in Paragraph 7, and to deferred payment, as set forth in Paragraph 8; and (b) rights to Restricted Stock Units which give the Grantee the right to receive Shares upon a Vesting Date, as set forth in Paragraph 7, and to deferred payment, as set forth in Paragraph 8. The maximum number of Shares subject to Awards that may be granted to any single individual in any calendar year, adjusted as provided in Paragraph 10, shall be one million Shares.

#### 4. SHARES SUBJECT TO THE PLAN

(a) Subject to shareholder approval at the Company's Annual Meeting of Shareholders to be held on May 26, 2004 (or such other date as the 2004 Annual Meeting of Shareholders may be held), not more than 15 million Shares in the aggregate may be issued under the Plan pursuant to the grant of Awards, subject to adjustment in accordance with Paragraph 10. The Shares issued under the Plan may, at the Company's option, be either Shares held in treasury or Shares originally issued for such purpose.

(b) If Restricted Stock or Restricted Stock Units are forfeited pursuant to the term of an Award, other Awards with respect to such Shares may be granted.

#### 5. ADMINISTRATION OF THE PLAN

(a) Administration. The Plan shall be administered by the Committee.

(b) <u>Grants</u>. Subject to the express terms and conditions set forth in the Plan, the Committee shall have the power, from time to time, to:

- (i) select those Employees to whom Awards shall be granted under the Plan, to determine the number of Shares and/or Restricted Stock Units, as applicable, to be granted pursuant to each Award, and, pursuant to the provisions of the Plan, to determine the terms and conditions of each Award, including the restrictions applicable to such Shares and the conditions upon which a Vesting Date shall occur; and
- (ii) interpret the Plan's provisions, prescribe, amend and rescind rules and regulations for the Plan, and make all other determinations necessary or advisable for the administration of the Plan.

The determination of the Committee in all matters as stated above shall be conclusive.

(c) <u>Meetings</u>. The Committee shall hold meetings at such times and places as it may determine. Acts approved at a meeting by a majority of the members of the Committee or acts approved in writing by the unanimous consent of the members of the Committee shall be the valid acts of the Committee.

(d) Exculpation. No member of the Committee shall be personally liable for monetary damages for any action taken or any failure to take any action in connection with the administration of the Plan or the granting of Awards thereunder unless (i) the member of the Committee has breached or failed to perform the duties of his office, and (ii) the breach or failure to perform constitutes self-dealing, willful misconduct or recklessness; provided, however, that the provisions of this Paragraph 5(d) shall not apply to the responsibility or liability of a member of the Committee pursuant to any criminal statute.

(e) Indemnification. Service on the Committee shall constitute service as a member of the Board. Each member of the Committee shall be entitled without further act on his part to indemnity from the Company to the fullest extent provided by applicable law and the Company's Articles of Incorporation and By-laws in connection with or arising out of any action, suit or proceeding with respect to the administration of the Plan or the granting of Awards thereunder in which he may be involved by reason of his being or having been a member of the Committee, whether or not he continues to be such member of the Committee at the time of the action, suit or proceeding.

(f) <u>Delegation of Authority</u>. The Committee may delegate to an officer of the Company, or a committee of two or more officers of the Company, discretion under the Plan to grant Restricted Stock and/or Restricted Stock Units to any Grantee other than a Grantee who, at the time of the grant:

- (i) has a base salary of \$500,000 or more;
- (ii) holds a position with Comcast Corporation of Senior Vice President or a position of higher rank than Senior Vice President; or
- (iii) is subject to the short-swing profit recapture rules of section 16(b) of the 1934 Act.

(g) <u>Termination of Delegation of Authority</u>. Any delegation of authority described in Paragraph 5(f) shall continue in effect until the earliest of:

- (i) such time as the Committee shall, in its discretion, revoke such delegation of authority;
- (ii) the delegate shall cease to be an employee of the Company for any reason; or
- (iii) the delegate shall notify the Committee that he declines to continue to exercise such authority.

#### 6. ELIGIBILITY

Awards may be granted only to Eligible Employees. No Awards shall be granted to an individual who is not an employee of a Participating Company.

#### 7. RESTRICTED STOCK AND RESTRICTED STOCK UNIT AWARDS

The Committee may grant Awards in accordance with the Plan. The terms and conditions of Awards shall be set forth in writing as determined from time to time by the Committee, consistent, however, with the following:

(a) <u>Time of Grant</u>. All Awards shall be granted within ten (10) years from the date of adoption of the Plan by the Board.

(b) <u>Terms of Awards</u>. The provisions of Awards need not be the same with respect to each Grantee. No cash or other consideration shall be required to be paid by the Grantee in exchange for an Award.

(c) <u>Awards and Agreements</u>. Each Grantee shall be provided with an agreement specifying the terms of an Award. In addition, a certificate shall be issued to each Grantee in respect of Restricted Shares subject to an Award. Such certificate shall be registered in the name of the Grantee and shall bear an appropriate legend referring to the terms, conditions and restrictions applicable to such Award. The Company may require that the certificate evidencing such Restricted Stock be held by the Company until all restrictions on such Restricted Stock have lapsed.

(d) <u>Restrictions</u>. Subject to the provisions of the Plan and the Award, during a period set by the Committee commencing with the Date of Grant, which, for Grantees who are subject to the short-swing profit recapture rules of section 16(b) of the 1934 Act by virtue of their position as either a director, officer or holder of more than 10 percent of any class of equity securities of the Company, shall extend for at least six (6) months from the Date of Grant, the Grantee shall not be permitted to sell, transfer, pledge or assign Restricted Stock awarded under the Plan.

(e) <u>Vesting/Lapse of Restrictions</u>. Subject to the provisions of the Plan and the Award, a Vesting Date for Restricted Stock or Restricted Stock Units subject to an Award shall occur at such time or times and on such terms and conditions as the Committee may determine and as are set forth in the Award; provided, however, that a Vesting Date shall occur only if the Grantee is an employee of a Participating Company as of such Vesting Date, and has been an employee of a Participating Company continuously from the Date of Grant. The Award may provide for Restricted Stock or Restricted Stock Units to vest in installments, as determined by the Committee may, in its sole discretion, waive, in whole or in part, any remaining conditions to vesting with respect to such Grantee's Restricted Stock or Restricted Stock Units. All references in Awards granted before the consummation of the AT&T Broadband Transaction as to which a Vesting Date has not occurred shall be deemed to be references to Special Common Stock.

(f) <u>Rights of the Grantee</u>. Grantees may have such rights with respect to Shares subject to an Award as may be determined by the Committee and set forth in the Award, including the right to vote such Shares, and the right to receive dividends paid with respect to such Shares. A Grantee whose Award consists of Restricted Stock Units shall not have the right to vote or to receive dividend equivalents with respect to such Restricted Stock Units.

(g) <u>Termination of Grantee's Employment</u>. A transfer of an Eligible Employee between two employers, each of which is a Participating Company, shall not be deemed a termination of employment. In the event that a Grantee terminates employment with all Participating Companies, all Restricted Shares and/or Restricted Stock Units as to which a Vesting Date has not occurred shall be forfeited by the Grantee and deemed canceled by the Company.

(h) <u>Delivery of Shares</u>. Except as otherwise provided by Paragraph 8, when a Vesting Date occurs with respect to all or a portion of an Award of Restricted Stock or Restricted Stock Units, the Company shall notify the Grantee that a Vesting Date has occurred, and shall deliver to the Grantee (or the Grantee's Successor-in-Interest) a certificate for the number of Shares as to which a Vesting Date has occurred (or in the case of Restricted Stock Units, the number of Shares represented by such Restricted Stock Units) without any legend or restrictions (except those that may be imposed by the Committee, in its sole judgment, under Paragraph 9(a)). The right to payment of any fractional Shares that may have accrued shall be satisfied in cash, measured by the product of the fractional amount times the Fair Market Value of a Share at the Vesting Date, as determined by the Committee.

#### 8. DEFERRAL ELECTIONS

A Grantee may elect to defer the receipt of Shares that would otherwise be issuable with respect to Restricted Stock or Restricted Stock Units as to which a Vesting Date has occurred, as provided by the Committee in the Award, consistent, however, with the following:

- (a) Initial Election.
  - (i) <u>Election</u>. Each Grantee who is a Deferral Eligible Employee shall have the right to defer the receipt of some or all of the Shares issuable with respect to Restricted Stock or Restricted Stock Units as to which a Vesting Date has not yet occurred, by filing an Initial Election to defer the receipt of such Shares on a form provided by the Committee for this purpose.
  - (ii) Deadline for Initial Election. No Initial Election to defer the receipt of Shares issuable with respect to Restricted Stock or Restricted Stock Units shall be effective unless it is filed with the Committee on or before the last day of the calendar year ending before the first day of the Plan Year in which the Vesting Date may occur; provided that an Initial Election to defer the receipt of Shares issuable with respect to Restricted Stock or Restricted Stock Units as to which the Award provides for a potential Vesting Date within the same Plan Year as the Plan Year in which the Award is granted shall be effective if it is filed with the Committee on or before the earlier of (A) the 30th day following the Date of Grant or (B) the last day of the month that precedes the month in which the Vesting Date may occur.

(b) Effect of Failure of Vesting Date to Occur. An Election shall be null and void if a Vesting Date with respect to the Restricted Stock or Restricted Stock Units does not occur before the distribution date for Shares issuable with respect to such Restricted Stock or Restricted Stock Units identified in such Election.

(c) <u>Deferral Period</u>. Except as otherwise provided in Paragraph 8(d), all Shares issuable with respect to Restricted Stock or Restricted Stock Units that are subject to an Election shall be delivered to the Grantee (or the Grantee's Successor-in-Interest) without any legend or restrictions (except those that may be imposed by the Committee, in its sole judgment, under Paragraph 9(a)), on the distribution date for such Shares designated by the Grantee on the most recently filed Election. Subject to acceleration or deferral pursuant to Paragraph 8(d) or Paragraph 11, no distribution may be made earlier than January 2nd of the second calendar year beginning after the Vesting Date, nor later than January 2nd of the tenth calendar year beginning after the Vesting Date. The distribution date may vary with each separate Election.

#### (d) Additional Elections.

- (i) Each Active Grantee who has previously made an Initial Election to receive a distribution of part or all of his or her Account, or who, pursuant to this Paragraph 8(d)(i) has made a Subsequent Election to defer the distribution date for Shares issuable with respect to Restricted Stock or Restricted Stock Units for an additional period from the originally-elected distribution date, may elect to defer the distribution date for a minimum of two and a maximum of ten additional years from the previously-elected distribution date, by filing a Subsequent Election with the Committee on or before the close of business on June 30 of the calendar year preceding the calendar year in which the distribution would otherwise be made.
- (ii) A Deceased Grantee's Successor-in-Interest may elect to: (A) file a Subsequent Election to defer the distribution date for the Deceased Grantee's Shares issuable with respect to Restricted Stock or Restricted Stock Units for a minimum of two additional years from the date payment would otherwise be made (provided that if a Subsequent Election is made pursuant to this Paragraph 8(d)(ii)(A), the Deceased Grantee's deferred Shares issuable with respect to Restricted Stock or Restricted Stock Units shall be distributed in full on or before the fifth anniversary of the Deceased Grantee's death); or (B) file an Acceleration Election to accelerate the distribution date for the Deceased Grantee's Shares issuable with respect to Restricted Stock or Restricted Stock Units from the date payment would otherwise be made to January 2nd of the calendar year beginning after the Deceased Grantee's death. A Subsequent Election or an Acceleration Election pursuant to this Paragraph 8(d)(ii) must be filed with the Committee on or before the close of business on (x) the June 30 following the Grantee's death on or before May 1 of a calendar year, (y) the 60th day following the Grantee's death after May 1 and before November 2 of a calendar year or (z) the December 31 following the Grantee's death after November 1 of a calendar year. One and only one Election shall be permitted pursuant to this Paragraph 8(d)(ii) with respect to a Deceased Grantee.
- (iii) A Disabled Grantee may elect to accelerate the distribution date of the Disabled Grantee's Shares issuable with respect to Restricted Stock or Restricted Stock Units from the date payment would otherwise be made to January 2nd of the calendar year beginning after the Grantee became disabled. An Acceleration Election pursuant to this Paragraph 8(d)(iii) must be filed with the Committee on or before the close of business on (x) the June 30 following the date the Grantee becomes a Disabled Grantee if the Grantee after May 1 and before November 2 of a calendar year or (z) the December 31 following the date the Grantee becomes a Disabled Grantee after November 2 of a calendar year.
- (iv) A Retired Grantee may elect to defer the distribution date of the Retired Grantee's Shares issuable with respect to Restricted Stock or Restricted Stock Units for a minimum of two additional years

from the date payment would otherwise be made (provided that if a Subsequent Election is made pursuant to this Paragraph 8(d)(iv), the Retired Grantee's Account shall be distributed in full on or before the fifth anniversary of the Retired Grantee's Normal Retirement). A Subsequent Election pursuant to this Paragraph 8(d)(iv) must be filed with the Committee on or before the close of business on the later of (x) the June 30 following the Grantee's Normal Retirement on or before May 1 of a calendar year, (y) the 60th day following the Grantee's Normal Retirement after May 1 and before November 2 of a calendar year or (z) the December 31 following the Grantee's Normal Retirement after November 1 of a calendar year.

(e) <u>Book Accounts</u>. An Account shall be established for each Grantee who makes an Election. Deferred Stock Units shall be credited to the Account as of the date an Election becomes effective. Each Deferred Stock Unit will represent, as applicable, either a hypothetical share of Common Stock or a hypothetical share of Special Common Stock credited to the Account in lieu of delivery of the Shares to which the Election applies. To the extent an Account is deemed invested in the Income Fund, the Committee shall credit earnings with respect to such Account at the Applicable Interest Rate, as further provided in Paragraph 8(f).

(f) <u>Crediting of Income, Gains and Losses on Accounts</u>. Except as otherwise provided in Paragraph 8(g), the value of a Participant's Account as of any date shall be determined as if it were invested in the Company Stock Fund.

- (g) Diversification Elections.
  - (i) In General. A Diversification Election shall be available: (A) at any time that a Registration Statement filed under the 1933 Act (a "Registration Statement") is effective with respect to the Plan; and (B) with respect to a Special Diversification Election, if and to the extent that the opportunity to make such a Special Diversification Election has been approved by the Committee. No approval is required for a Diversification Election other than a Special Diversification Election.
  - (ii) Committee Approval of Special Diversification Elections. The opportunity to make a Special Diversification Election and the extent to which a Special Diversification Election applies to Deferred Stock Units credited to the Company Stock Fund may be approved or rejected by the Committee in its sole discretion. A Special Diversification Election shall only be effective if (and to the extent) approved by the Committee.
  - (iii) <u>Timing and Manner of Making Diversification Elections</u>. Each Grantee and, in the case of a Deceased Grantee, the Successor-in-Interest, may make a Diversification Election to convert up to 40 percent (or in the case of a Special Diversification Election, up to the approved percentage) of Deferred Stock Units attributable to each grant of Restricted Stock or Restricted Stock Units credited to the Company Stock Fund to the Income Fund. No deemed transfers shall be permitted from the Income Fund to the Company Stock Fund. Diversification Elections under this Paragraph 8(g)(iii) shall be prospectively effective on the later of: (A) the date designated by the Grantee on a Diversification Election filed with the Committee; or (B) the business day next following the lapse of six months from the date Deferred Stock Units subject to the Diversification Election are credited to the Grantee's Account. In no event may a Diversification Election be effective earlier than the business day next following the lapse of six (6) months from the date Deferred Stock Units are credited to the Account following the lapse of restrictions with respect to an Award.
  - (iv) <u>Timing of Credits</u>. Account balances subject to a Diversification Election under this Paragraph 8(g) shall be deemed transferred from the Company Stock Fund to the Income Fund immediately following the effective date of such Diversification Election. The value of amounts deemed invested in the Income Fund immediately following the effective date of a Diversification Election shall be based on hypothetical sales of Common Stock or Special Common Stock, as applicable, underlying the liquidated Deferred Stock Units at Fair Market Value as of the effective date of a Diversification Election.

(h) Effect of Distributions within Five Years of Effective Date of Diversification Election. If, pursuant to Paragraphs 8(a) through 8(d), Shares distributable with respect to Deferred Stock Units credited to the Company Stock Fund that are attributable to an Award as to which a Diversification Election was made are distributed on or before the fifth anniversary of the effective date of such Diversification Election (and, in the case of a Grantee who is a Successor-in-Interest, whether or not such Diversification Election was made by a Grantee's predecessor-in-interest), then, except as may otherwise be provided by the Committee in its sole and absolute discretion, the following percentage of the Grantee's Account credited to the Income Fund and attributable to such Diversification Election shall be distributed simultaneously with such Shares, without regard to any election to the contrary:

Time that Shares are Distributable	Distributable Percentage of Corresponding Income Fund Amount
On or before the third anniversary of a Diversification Election	60%
After the third anniversary of a Diversification Election and on or before the fourth anniversary of a Diversification Election	40%
After the fourth anniversary of a Diversification Election and on or before the fifth anniversary of a Diversification Election	20%
After the fifth anniversary of a Diversification Election	0%

(i) <u>Grantees' Status as General Creditors</u>. A Grantee's right to delivery of Shares subject to an Election under this Paragraph 8, or to amounts deemed invested in the Income Fund pursuant to a Diversification Election, shall at all times represent the general obligation of the Company. The Grantee shall be a general creditor of the Company with respect to this obligation, and shall not have a secured or preferred position with respect to such obligation. Nothing contained in the Plan or an Award shall be deemed to create an escrow, trust, custodial account or fiduciary relationship of any kind. Nothing contained in the Plan or an Award shall be construed to eliminate any priority or preferred position of a Grantee in a bankruptcy matter with respect to claims for wages.

(j) <u>Non-Assignability, Etc.</u> The right of a Grantee to receive Shares subject to an Election under this Paragraph 8, or to amounts deemed invested in the Income Fund pursuant to a Diversification Election, shall not be subject in any manner to attachment or other legal process for the debts of such Grantee; and no right to receive Shares or cash payments hereunder shall be subject to anticipation, alienation, sale, transfer, assignment or encumbrance.

#### 9. SECURITIES LAWS; TAXES

(a) <u>Securities Laws</u>. The Committee shall have the power to make each grant of Awards under the Plan subject to such conditions as it deems necessary or appropriate to comply with the then-existing requirements of the 1933 Act and the 1934 Act, including Rule 16b-3. Such conditions may include the delivery by the Grantee of an investment representation to the Company in connection with a Vesting Date occurring with respect to Shares subject to an Award, or the execution of an agreement by the Grantee to refrain from selling or otherwise disposing of the Shares acquired for a specified period of time or on specified terms.

(b) <u>Taxes</u>. Subject to the rules of Paragraph 9(c), the Company shall be entitled, if necessary or desirable, to withhold the amount of any tax, charge or assessment attributable to the grant of any Award or the occurrence of a Vesting Date with respect to any Award. The Company shall not be required to deliver Shares pursuant to any Award until it has been indemnified to its satisfaction for any such tax, charge or assessment.

#### (c) Payment of Tax Liabilities: Election to Withhold Shares or Pay Cash to Satisfy Tax Liability.

- (i) In connection with the grant of any Award or the occurrence of a Vesting Date under any Award, the Company shall have the right to (A) require the Grantee to remit to the Company an amount sufficient to satisfy any federal, state and/or local withholding tax requirements prior to the delivery or transfer of any certificate or certificates for Shares subject to such Award, or (B) take any action whatever that it deems necessary to protect its interests with respect to tax liabilities. The Company's obligation to make any delivery or transfer of Shares shall be conditioned on the Grantee's compliance, to the Company's satisfaction, with any withholding requirement.
- (ii) Except as otherwise provided in this Paragraph 9(c)(ii), any tax liabilities incurred in connection with grant of any Award or the occurrence of a Vesting Date under any Award under the Plan shall be satisfied by the Company's withholding a portion of the Shares subject to such Award having a Fair Market Value approximately equal to the minimum amount of taxes required to be withheld by the Company under applicable law, unless otherwise determined by the Committee with respect to any Grantee. Notwithstanding the foregoing, the Committee may permit a Grantee to elect one or both of the following: (A) to have taxes withheld in excess of the minimum amount required to be withheld by the Company under applicable law; provided that the Grantee certifies in writing to the Company at the time of such election that the Grantee owns Other Available Shares having a Fair Market Value that is at least equal to the Fair Market Value to be withheld by the Company in payment of withholding taxes in excess of such minimum amount; and (B) to pay to the Company in cash all or a portion of the taxes to be withheld in connection with such grant or Vesting Date. In all cases, the Shares so withheld by the Company shall have a Fair Market Value that does not exceed the amount of taxes to be withheld minus the cash payment, if any, made by the Grantee. Any election pursuant to this Paragraph 9(c)(ii) must be in writing made prior to the date specified by the Committee, and in any event prior to the date the amount of tax to be withheld or paid is determined. An election pursuant to this Paragraph 9(c)(ii) may be made only by a Grantee or, in the event of the Grantee's death, by the Grantee's legal representative. No Shares withheld pursuant to this Paragraph 9(c)(ii) shall be available for subsequent grants under the Plan. The Committee may add such other requirements and limitations regarding elections pursuant to this Paragraph 9(c)(ii) as it deems appropriate.

#### 10. CHANGES IN CAPITALIZATION

The aggregate number of Shares and class of Shares as to which Awards may be granted and the number of Shares covered by each outstanding Award shall be appropriately adjusted in the event of a stock dividend, stock split, recapitalization or other change in the number or class of issued and outstanding equity securities of the Company resulting from a subdivision or consolidation of the Shares and/or other outstanding equity security or a recapitalization or other capital adjustment (not including the issuance of Shares and/or other outstanding equity securities on the conversion of other securities of the Company which are convertible into Shares and/or other outstanding equity securities) affecting the Shares which is effected without receipt of consideration by the Company. The Committee shall have authority to determine the adjustments to be made under this Paragraph 10 and any such determination by the Committee shall be final, binding and conclusive.

#### 11. TERMINATING EVENTS

The Committee shall give Grantees at least thirty (30) days' notice (or, if not practicable, such shorter notice as may be reasonably practicable) prior to the anticipated date of the consummation of a Terminating Event. The Committee may, in its discretion, provide in such notice that upon the consummation of such Terminating Event, any conditions to the occurrence of a Vesting Date with respect to an Award of Restricted Stock or Restricted Stock Units (other than Restricted Stock or Restricted Stock Units that have previously been forfeited) shall be eliminated, in full or in part. Further, the Committee may, in its discretion, provide in such notice that notwithstanding any other provision of the Plan or the terms of any Election made pursuant to Paragraph 8, upon the consummation of a Terminating Event, Shares issuable with respect to Restricted Stock or Restricted Stock Units subject to an Election made pursuant to Paragraph 8 shall be transferred to the Grantee, and all amounts credited to the Income Fund shall be paid to the Grantee.

#### 12. CLAIMS PROCEDURE

If an individual (hereinafter referred to as the "Applicant." which reference shall include the legal representative, if any, of the individual) does not receive timely payment of benefits to which the Applicant believes he is entitled under Paragraph 8 of the Plan, the Applicant may make a claim for benefits in the manner hereinafter provided.

An Applicant may file a claim for benefits with the Committee on a form supplied by the Committee. If the Committee wholly or partially denies a claim, the Committee shall provide the Applicant with a written notice stating:

- (a) The specific reason or reasons for the denial;
- (b) Specific reference to pertinent Plan provisions on which the denial is based;

(c) A description of any additional material or information necessary for Applicant to perfect the claim and an explanation of why such material or information is necessary; and

(d) Appropriate information as to the steps to be taken in order to submit a claim for review.

Written notice of a denial of a claim shall be provided within 90 days of the receipt of the claim, provided that if special circumstances require an extension of time for processing the claim, the Committee may notify the Applicant in writing that an additional period of up to 90 days will be required to process the claim.

If the Applicant's claim is denied, the Applicant shall have 60 days from the date of receipt of written notice of the denial of the claim to request a review of the denial of the claim by the Committee. Request for review of the denial of a claim must be submitted in writing. The Applicant shall have the right to review pertinent documents and submit issues and comments to the Committee in writing. The Committee shall provide a written decision within 60 days of its receipt of the Applicant's request for review, provided that if special circumstances require an extension of time for processing the review of the Applicant's claim, the Committee may notify the Applicant in writing that an additional period of up to 60 days shall be required to process the Applicant's request for review.

It is intended that the claims procedures of this Plan be administered in accordance with the claims procedure regulations of the Department of Labor set forth in 29 CFR § 2560.503-1.

Claims for benefits under the Plan must be filed with the Committee at the following address:

Comcast Corporation 1500 Market Street Philadelphia, PA 19102 Attention: General Counsel

#### 13. AMENDMENT AND TERMINATION

The Plan may be terminated by the Board at any time. The Plan may be amended by the Board or the Committee at any time. No Award shall be affected by any such termination or amendment without the written consent of the Grantee.

#### 14. EFFECTIVE DATE

The effective date of this amendment and restatement of the Plan is February 24, 2004.

#### 15. GOVERNING LAW

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The Plan and all determinations made and actions taken pursuant to the Plan shall be governed in accordance with Pennsylvania law.

Executed as of the 24th day of February, 2004.

COMCAST CORPORATION

By: /s/ David L. Cohen

Attest: /s/ Arthur R. Block

#### Appendix C

#### Proposed Amendment to the Comcast Corporation Amended and Restated Articles of Incorporation

If approved, Article SIXTH of the Comcast Corporation Amended and Restated Articles of Incorporation would be amended and restated in its entirety to read in full as follows (deletions are shown as struck-through text and additions as double-underlined text):

#### SIXTH: Governance

#### A. Definitions

1. "Additional Independent Director" has the meaning specified in paragraph (B)(1) of this Article SIXTH.

2. "AT&T" means AT&T Corp., a New York corporation.

3. "AT&T Directors" means (i) those five (5) Directors designated by AT&T to serve as members of the Board of Directors pursuant to a contractual right of AT&T to designate such Directors, <u>and (ii) any</u> Replacement AT&T Director-and (iii) any Director elected to replace an AT&T Director at the 2004 annualmeeting of shareholders of the Corporation or designated as an AT&T Director pursuant to the last sentence of paragraph (E)(2) of this Article SIXTH.

4. "Board of Directors" means the Board of Directors of the Corporation.

5. "CEO" means the Chief Executive Officer of the Corporation.

6. "Chairman" means the Chairman of the Board of Directors.

7. "Class of Director" means the Comcast Directors, the AT&T Directors or the Independent Directors, as the case may be.

8. "Comcast" means Comcast Corporation, a Pennsylvania corporation.

9. "Comcast Directors" means (i) those five (5) Directors designated by Comcast to serve as members of the Board of Directors pursuant to a contractual right of Comcast to designate such Directors. (ii) any Replacement Comcast Director and (iii) any Director elected to replace a Comeast Director at the 2004 annual meeting of shareholders of the Corporation or designated as a Comcast Director pursuant to the last sentence of paragraph (E)(2) of this Article SIXTH.

10. "Director" means a director of the Corporation.

11. "Effective Time" means the date and time at which these Amended and Restated Articles of Incorporation become effective with the Department of State of the Commonwealth of Pennsylvania.

12. "Governance and Directors Nominating Committee" has the meaning specified in paragraph (E)(1) of this Article SIXTH.13. "Holiday" has the meaning specified in paragraph (B)(6) of this Article SIXTH.

14.113. "Independent Director" means (i) those two (2) Independent Persons jointly designated by AT&T and Comcast to serve as members of the Board of Directors pursuant to a contractual right of AT&T and

Comcast to designate such Directors, (ii) any Additional Independent Director.<u>and</u> (iii) any Replacement Independent Director and (iv) any Director elected to replace an Independent Director at the 2004 annual meetingof shareholders of the Corporation or designated as an Independent Director pursuant to the last sentence of paragraph (E)(2) of this Article SIXTH.

15.114. "Independent Person" means an independent person (determined in accordance with the rules of the principal stock exchange or interdealer quotation system on which the class of Corporation common stock with the greatest aggregate market capitalization (as determined in good faith by the Board of Directors) is traded), it being understood that (i) each individual who was a member of the Board of Directors of AT&T as of December 19, 2001 (other than Mr. C. Michael Armstrong) was deemed to be an Independent Person as of December 19, 2001, (ii) subject to clauses (iii) and (iv) of this definition, none of the members of the Board of Directors of Comcast as of December 19, 2001 was deemed to be an Independent Person as of December 19, 2001, (iii) Mr. Decker Anstrom was deemed to be an Independent Person as of December 19, 2001, (iv) for any period during which Mr. Decker Anstrom is not a Director, one person (other than Mr. Ralph J. Roberts, Mr. Brian L. Roberts, Mr. Julian A. Brodsky or Mr. Sheldon M. Bonovitz) designated by the CEO (which designation may be changed at any time by the CEO) who was a member of the Board of Directors of Comcast on December 19, 2001 and who would qualify as an Independent Person under this definition not taking into account clause (ii) of this definition shall be deemed to be an Independent Person; provided that such person shall not be eligible to be an AT&T Director or an Independent Director (any such designee, a "Comcast Independent Designee") and (v) none of the spouse, parents, siblings, lineal descendants, aunts, uncles, cousins and other close relatives (or their respective spouses) of Mr. Brian L. Roberts will be deemed Independent Persons at any time.

16.115. "Initial Term" means the period beginning at the Effective Time and ending at the 2004 annual meeting of shareholders of the Corporation.

17.116. "Replacement AT&T Director" has the meaning specified in paragraph (B)(3) of this Article SIXTH.

18.117. "Replacement Comcast Director" has the meaning specified in paragraph (B)(3) of this Article SIXTH.

19.118. "Replacement Director" has the meaning specified in paragraph (B)(3) of this Article SIXTH.

20:119. "Replacement Independent Director" has the meaning specified in paragraph (B)(3) of this Article SIXTH.

24.120. "Specified Period" means the period beginning at the Effective Time and ending at the 2005 annual meeting of shareholders of the Corporation or, if earlier, the date on which Mr. C. Michael Armstrong ceases to be the Chairman.

 $\frac{22.121}{21.}$  "2004 Term" means the period beginning at the 2004 annual meeting of shareholders of the Corporation and ending at the 2005 annual meeting of shareholders of the Corporation.

#### **B.** Directors

1. From the Effective Time until the expiration of the 2004 Term, subject to the fourth sentence of this paragraph (B)(1) of Article SIXTH and the second to last sentence of paragraph (B)(3) of Article SIXTH, the Board of Directors shall consist of five (5) Comcast Directors (at least one (1) of whom shall be an Independent Person), five (5) AT&T Directors and two (2) Independent Directors. If the size of the Board of Directors is increased as described in the fourth sentence of this paragraph (B)(1) of Article SIXTH or there is a vacancy in the Comcast or AT&T Class of Directors that pursuant to the second to last sentence of paragraph (B)(3) of Article SIXTH the applicable Class of Directors is not required to fill, the size of the Board of Directors shall be

fixed at the number of Directors in place after such increase or vacancy and shall remain fixed at such number unless subsequently increased again pursuant to the fourth sentence of this paragraph (B)(1) of Article SIXTH or such vacancy is filled pursuant to paragraph (B)(3) of Article SIXTH (in either of such events the size of the Board of Directors shall be fixed at such increased number until subsequently changed as provided in this paragraph (B)(1) and paragraph (B)(3) of this Article SIXTH). At all times, the Board of Directors shall consist of a majority of Independent Persons. From the Effective Time until the expiration of the 2004 Term, a majority of the Directors may increase the size of the Board of Directors by up to two (2) members. The Board of Directors shall take all action necessary to ensure that any vacancy on the Board of Directors created as a result of any such increase shall be filled promptly by an Independent Person nominated by the Governance and Directors Nominating Committeelgovernance and directors nominating committee of the Board of Directors and approved by the Board of Directors (an "Additional Independent Director"). After the election of an Additional Independent Director, such Additional Independent Director shall be considered an Independent Directors for all purposes of this Article SIXTH. After the expiration of the 2004 Term, the size of the Board of Directors shall be determined in accordance with the By-Laws of the Corporation and the provisions of these Articles of Incorporation relating to Classes of Directors shall no longer apply.

2. Following the occurrence of a vacancy on the Board of Directors that results in the absence of one or more of (i) a majority of Independent Persons on the Board of Directors, (ii) at least one Comcast Director who is an Independent Person, (iii) the then required number of Independent Directors, (iv) four (4) Comcast Directors or (v) four (4) AT&T Directors. and notwithstanding the occurrence of such vacancy, the applicable Directors specified in paragraph (B)(3) of this Article SIXTH shall be authorized to take the actions contemplated by such paragraph to permit the Board of Directors to fill such vacancy (which vacancy shall be filled by an Independent Person in the case of clauses (i), (ii) and (iii)) and the Board of Directors shall be authorized to fill the vacancy in accordance with such paragraph. In addition to the foregoing and subject to the last sentence of paragraph (B)(3) of Article SIXTH, for a ninety (90) day period following the occurrence of a vacancy in the Board of Directors that results in one or more of the circumstances described in clauses (i), (ii), (iii), (iv) and (v) of the preceding sentence, the Directors then in office shall have and may exercise all of the powers of the Board of Directors to the extent provided under these Articles of Incorporation, the By-Laws of the Corporation and applicable law.

3. From the Effective Time until the expiration of the 2004 Term, the Board of Directors shall take all action necessary to ensure that any seat on the Board of Directors held by (i) a Comcast Director which becomes vacant is filled promptly by a person designated by a majority of the Comcast Directors remaining on the Board of Directors (such person, a "Replacement Comcast Director"), (ii) an AT&T Director which becomes vacant is filled promptly by a person designated by a majority of the AT&T Directors remaining on the Board of Directors (such person, a "Replacement AT&T Director") and (iii) an Independent Director which becomes vacant is filled promptly by an Independent Person designated by the Governance and Directors Nominating-Committee governance and directors nominating committee of the Board of Directors (such person, a "Replacement Independent Director" and, together with any Replacement Comcast Director and any Replacement AT&T Director, a "Replacement Director"); provided that the designation of any Replacement Independent Director by the Governance and Directors Nominating Committee governance and directors nominating committee of the Board of Directors shall be subject to the approval of the Board of Directors prior to such person becoming a Replacement Independent Director. Notwithstanding anything to the contrary contained herein, the remaining Comcast Directors or the remaining AT&T Directors, as the case may be, shall be under no obligation to designate a person to fill a vacancy in its Class of Directors (and during the pendency of any such vacancy the Board of Directors shall continue to exercise all of its powers to the extent provided under these Articles of Incorporation, the By-Laws of the Corporation and applicable law), except to the extent such vacancy results in fewer than four (4) Directors in the affected Class of Directors or, in the case of the Comcast Directors, the absence of one Comcast Director who is an Independent Person. In the absence of a designation by the Comcast Directors, the AT&T Directors or the Governance and Directors Nominating Committee Igovernance and directors nominating committee of the Board of Directors, as the case may be, of a person to fill a vacancy in the relevant Class of Directors, the Board of Directors shall have no authority to fill a vacancy in the applicable Class of Directors.

4. Subject to paragraph (B)(7) of this Article SIXTH, each of the Comcast Directors, AT&T Directors and Independent Directors at the Effective Time, and each Replacement Director and Additional Independent Director elected to the Board of Directors in accordance with this Article SIXTH during the Initial Term, shall hold office until the expiration of the Initial Term and until such Director's successor has been selected and qualified or until such Director's earlier death, resignation or removal.

5. Subject to paragraph (B)(7) of this Article SIXTH, each of the Comcast Directors, AT&T Directors and Independent Directors immediately after the annual meeting of shareholders of the Corporation in 2004, and each Replacement Director and Additional Independent Director elected to the Board of Directors in accordance with this Article SIXTH during the 2004 Term, shall hold office until the expiration of the 2004 Term and until such Director's successor has been selected and qualified or until such Director's earlier death, resignation or removal.

6. The first (or in the event the Board of Directors calls an annual meeting of shareholders pursuant to the last sentence of this paragraph (B)(6), the second) annual meeting of shareholders of the Corporation after the Effective Time shall occur on such date and at such time in April 2004 as the Board of Directors may determine, or if the Board of Directors fails to set a date and time, on the second Thursday of April 2004 at 9:00 o'clock a.m., if, in either case, not a holiday on which national banks are or may elect to be closed ("Holiday"), and if such day is a Holiday, then such meeting shall be held on the next business day at such time. The second (or in the event the Board of Directors calls an annual meeting of shareholders pursuant to the last sentence of this paragraph (B)(6), the third) annual meeting of shareholders of the Corporation after the Effective Time shall occur on such date and at such time in April 2005 as the Board of Directors may determine, or if the Board of Directors fails to set a date and time, on the second Thursday of April 2005 at 9:00 o'clock a.m., if, in either case, not a Holiday, then such meeting shall be held on the next business day at such time. The Corporation may, at the election of the Board of Directors, call an annual meeting of shareholders of the Corporation in 2003 for the purpose of conducting such business, other than the election of Directors, as the Board of Directors shall determine.

7. In addition to the events set forth in each of paragraphs (B)(4) and (B)(5) of this Article SIXTH, the term of office of any Comcast Director or AT&T Director, in either case who was an Independent Person on the date of such Director's designation, appointment or election as a member of the Board of Directors, or of any Independent Director, shall terminate on any date on which such Director shall cease to be an Independent Person if as a result of such Director ceasing to be an Independent Person the Board of Directors shall not include (i) a majority of Independent Persons and (ii) at least one Comcast Director who is an Independent Person.

#### C. Office of the Chairman

1. At the Effective Time and during the Specified Period, there shall be an Office of the Chairman which shall be comprised of the Chairman and the CEO.

2. The Office of the Chairman shall be the Corporation's principal executive deliberative body with responsibility for corporate strategy, policy and direction, governmental affairs and other matters of significance to the Corporation. The Chairman and the CEO shall advise and consult with each other with respect to each of the foregoing matters.

#### D. Officers

#### 1. Chairman.

(a) At the Effective Time and during the Specified Period, the Chairman shall be Mr. C. Michael Armstrong if he is willing and available to serve; *provided* that from and after April 1, 2004, if the Specified Period has not expired, Mr. C. Michael Armstrong shall be non-executive Chairman for the remainder of the Specified Period. After the Specified Period, the Chairman shall be Mr. Brian L. Roberts if he is willing and available to serve.

(b) The Chairman shall preside at all meetings of the shareholders of the Corporation and of the Board of Directors. In the absence of the Chairman, if the Chairman and the CEO are not the same person, the CEO shall chair such meetings.

(c) The Chairman shall have the authority to call special meetings of the Board of Directors, in the manner provided by the By-Laws of the Corporation.

(d) Removal of the Chairman shall require the affirmative vote of at least 75% of the entire Board of Directors until the earlier to occur of (i) the date on which neither Mr. C. Michael Armstrong nor Mr. Brian L. Roberts is the Chairman and (ii) the sixth anniversary of the expiration of the Initial Term.

2. Chief Executive Officer and President.

(a) At the Effective Time, the CEO shall be Mr. Brian L. Roberts if he is willing and available to serve. For so long as Mr. Brian L. Roberts shall be the CEO, he shall also be the President of the Corporation.

(b) The powers, rights, functions and responsibilities of the CEO shall include, without limitation, the following, subject to the control and direction of the Board of Directors:

(i) the supervision, coordination and management of the Corporation's business, operations, activities, operating expenses and capital allocation;

(ii) matters relating to officers (other than the Chairman) and employees, including, without limitation, hiring, terminating, changing positions and allocating responsibilities of such officers and employees; *provided* that, if the Chairman and the CEO are not the same person, the CEO shall consult with the Chairman in connection with the foregoing as it relates to the senior executives of the Corporation; *provided*, *further*, that following the initial designation of officers by the CEO (in consultation with the Chairman) as provided herein, the election of officers shall be as provided in the By-Laws of the Corporation;

(iii) all of the powers, rights, functions and responsibilities typically exercised by a chief executive officer and president of a corporation; and

(iv) the authority to call special meetings of the Board of Directors, in the manner provided by the By-Laws of the Corporation.

(c) Removal of the CEO shall require the affirmative vote of at least 75% of the entire Board of Directors until the earlier to occur of (i) the date on which Mr. Brian L. Roberts ceases to be the CEO and (ii) the sixth anniversary of the expiration of the Initial Term.

#### E. Governance and Directors Nominating Committee.

1. The Governance and Directors Nominating Committee (the "Governance and Directors Nominating Committee") shall have the power to designate Replacement Independent Directors as described in paragraph (B)(3) of this Article SIXTH, to nominate Additional Independent Directors as described in paragraph (B)(1) of this Article SIXTH and to nominate individuals for election by the shareholders of the Corporation as Directors at the 2004 annual meeting of shareholders of the Corporation and thereafter. During the Initial Term, the Governance and Directors Nominating Committee shall consist of Mr. Brian L. Roberts, if he is the Chairman or the CEO, one (1) Comcast Director who is an Independent Person selected by the Comcast Directors and two (2) Directors who are Independent Persons and the Independent Directors by the AT&T Directors who are Independent Directors after consultation with Mr. Brian L. Roberts. During the Initial Term, if Mr. Brian L. Roberts is not the Chairman or the CEO, the Governance and Directors Nominating Committee shall consist of the Corporation as the Independent Person selected by the Concast Directors Nominating Committee shall consist of two (2) Comeast Directors after consultation with Mr. Brian L. Roberts. During the Initial Term, if Mr. Brian L. Roberts is not the Chairman or the CEO, the Governance and Directors Nominating Committee shall consist of two (2) Comeast Directors selected by the Comeast Directors at least one of whom shall be an Independent Person and two (2) Directors who are Independent Person selected from the AT&T Directors after consultation with Terms and Directors after consultation the AT&T Directors at least one of whom shall be an Independent Person and two (2) Directors who are Independent Persons selected from the AT&T Directors after consultation the Independent Person and two (2) Directors who are Independent Persons selected from the AT&T Directors after consultation the Independent Person selected from the AT&T Directors after consultation the Independent Pe

with a Comeast Director selected by the two (2) Comeast Directors selected to serve on the Governance and Directors Nominating Committee. During the 2004 Term, the Governance and Directors Nominating Committee shall consist of Mr. Brian L. Roberts, if he is the Chairman or the CEO, one (1) Comeast Director who is an Independent Person selected by the Comcast Directors and three (3) Directors who are Independent Persons selected from the AT&T Directors and the Independent Directors by the Comeast Directors. During the 2004 Term, if Mr. Brian L. Roberts is not the Chairman or the CEO, the Governance and Directors Nominating Committee shall consist of two (2) Comeast Directors selected by the Comeast Directors at least one of whomshall be an Independent Person and three (3) Independent Persons selected from the AT&T Directors and the Independent Directors by the Comeast Directors. After the 2004 Term, the Governance and Directors Nominating Committee shall consist of Mr. Brian L. Roberts, if he is the Chairman or CEO, and four (4) Directors who are Independent Persons selected by Mr. Brian L. Roberts; provided that no more than one (1) person who was a Comeast Director or a Comeast Independent Designee may be selected by Mr. Brian L. Roberts as a member of the Governance and Directors Nominating Committee pursuant to this sentence prior to the seventh anniversary of the date that such Director was initially elected to the Board of Directors. After the 2004 Term, if Mr. Brian L. Roberts is not the Chairman or CEO, the Governance and Directors Nominating-Committee shall be constituted as determined by the Board of Directors. Notwithstanding the foregoing, if Mr. Brian L. Roberts is the Chairman or CEO but is ineligible to serve on the Governance and Directors Nominating. Committee at any relevant time under the applicable rules of the principal U.S. securities exchange or quotationsystem on which the Class A Common Stock is listed and traded, (i) during the Initial Term and the 2004 Termthe Governance and Directors Nominating Committee shall be composed as it would be composed if Mr. Brian-L. Roberts were not the Chairman or CEO at such time (all of the members of which shall be eligible to serve under such rules) and (ii) after the 2004 Term the Governance and Directors Nominating Committee shall be composed of five (5) directors (all of whom shall be eligible to serve under such rules and at least four of whomshall be Independent Persons) selected by Mr. Brian L. Roberts; provided that no more than two (2) persons who were Comeast Directors or Comeast Independent Designees may be selected by Mr. Brian L. Roberts asmembers of the Governance and Directors Nominating Committee pursuant to this elause (ii) prior to the seventhanniversary of the date such Director was initially elected to the Board of Directors. At any time that Mr. Brian-L. Roberts is a member of the Governance and Directors Nominating Committee, he shall be the Chairman of the Governance and Directors Nominating Committee. Subject to paragraph (E)(2) of this Article SIXTH, all powersotherwise held by the Board of Directors to nominate individuals for election by the shareholders of the Corporation as Directors shall reside exclusively in the Governance and Directors Nominating Committee, no such nominations shall be made by the Board of Directors and all nominations of the Governance and Directors-Nominating Committee shall be submitted directly to the shareholders of the Corporation without any requirement that such nominations be submitted to the Board of Directors for its approval or ratification.

2. If the Governance and Directors Nominating Committee is able to reach agreement on a full slate of nominations for the 2004 annual meeting of shareholders of the Corporation, each of the individuals selected as a nominee who is a Director then in office will maintain the status of a "Comeast Director," "AT&T Director" or "Independent Director," as the case may be, and cach of the other individuals, if any, selected as a nominee willhave the status determined by the Governance and Directors Nominating Committee; provided that (i) the number of nominees constituting a full slate of nominations shall be equal to the number of Directors then in office and (ii) the number of nominees that have the status of a particular Class of Directors shall be equal to the number of Directors then in that Class of Directors. If the Governance and Directors Nominating Committee is unable to reach agreement on a full slate of nominations for the 2004 annual meeting of shareholders of the Corporation, each of the Directors then in office shall be nominated for election as a Director at the 2004 annual meeting of shareholders of the Corporation and shall maintain the status of a "Comeast Director," "AT&T Director" or "Independent Director," as the case may be. In the event that any of such Directors declines to standfor election as a Director at the 2004 annual meeting of shareholders of the Corporation, a replacement nomineewill be selected by (i) if the Director declining to stand for election is a Comeast Director, a majority of the Comeast Directors then in office (other than the Comeast Director declining to stand for election), (ii) if the Director declining to stand for election is an AT&T Director, a majority of the AT&T Directors then in office-(other than the AT&T Director declining to stand for election) and (iii) if the Director declining to stand for

election is an Independent Director, the Governance and Directors Nominating Committee, subject to the priorapproval of the Board of Directors (other than the Independent Director declining to stand for election). If a replacement nominee is selected to replace a declining Director pursuant to the preceding sentence, such replacement nominee shall be deemed to have the status of the declining Director as a "Comeast Director," "AT&T Director" or "Independent Director," as the case may be. If a Comeast Director or AT&T Directordeclines to stand for election, the Comeast Directors or the AT&T Directors, as the case may be, shall not be obligated to select a replacement nominee, except to the extent that their failure to select a replacement nomineewould result in fewer than four (4) Directors in the affected Class of Directors. If a person is cleeted as a Director at the 2004 annual meeting of shareholders who was not nominated pursuant to the provisions of this paragraph (E), such person will be deemed to have the status of the former Director he or she was elected in lieu of. If multiple persons are elected as Directors at the 2004 annual meeting of shareholders who were not nominated pursuant to the provisions of this paragraph (E) and it is not possible to determine whom they were elected in lieu of, their status as "Comeast Directors," "AT&T Directors" or "Independent Directors" shall be determined by the entire Board of Directors; provided that the number of Directors that have the status of a particular Class of Directors shall be equal to the number of Directors in that Class of Directors immediately prior to the 2004 annual meeting of shareholders and the status of the other Directors shall not be affected as a result of such determination.

3. Any action of the Governance and Directors Nominating Committee shall require the approval of a majority of the entire Governance and Directors Nominating Committee. If any provision of this paragraph (E) provides for a selection or determination to be made by any given group or Class of Directors, such selection or determination shall require the approval of a majority of the Directors in such entire group or Class, as the case may be, and (except as otherwise specifically provided) not the approval of any given subset of such group or Class, as the case may be. F. Executive Committee. If the Board of Directors decides to establish an Executive Committee, if he is willing and able to serve and for so long as he shall be a member of the Board of Directors, Mr. Ralph J. Roberts shall be the Chairman of the Executive Committee.

GIF. Amendment. Subject to paragraph (HIG) of this Article SIXTH, until the earlier to occur of (i) the date on which Mr. Brian L. Roberts is no longer serving as the Chairman or the CEO and (ii) the sixth anniversary of the expiration of the Initial Term, the provisions of this Article SIXTH and the provisions of Article 9 of the By-Laws may not be amended, altered, repealed or waived in any respect without the prior approval of at least 75% of the entire Board of Directors.

HIG. Termination. If Mr. Brian L. Roberts is no longer serving as the Chairman or the CEO, the provisions of this Article SIXTH (other than paragraphs (A), | and (B)(2) (but only insofar as such paragraph relates to the requirement that a majority of the Directors be Independent Persons) and (E) and the second sentence of paragraph (B)(1), in each case of this Article SIXTH) shall terminate automatically without any further action of the Board of Directors or the shareholders of the Corporation; *provided* that notwithstanding the foregoing, in the event that Mr. Brian L. Roberts ceases to serve as the Chairman or the CEO prior to the 2005 annual meeting of shareholders of the Corporation, the provisions of paragraphs (A). (B), (C), and (D)(1)(a)-(c) and (E) of this Article SIXTH shall survive through the close of such annual meeting.

CO-PS-2004

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# **2007 ANNUAL REPORT**

# COMCAST CABLE TELEVISION CHANGES AUGUST 30, 2007

### **CHANNEL CHANGES**

July 1, 2006 – June 30, 2007

September 2006

- Comcast launched CN8 as an Expanded Basic Service on channel 21 and as a High Definition channel on channel 218.
- Comcast launched Universal HD, as a High Definition channel on channel 250.
- CasaClub, Hispanic programming on channel 609 the Hispanic tier, changed its name to VeneMovies.
- American Movie Classic was migrated from Expanded Basic on channel 40 to Digital Classic on channel 138
- Country Music Television was migrated from Expanded Basic on channel 58 to Digital Classic on channel 146
- Game Show Network was migrated from Expanded Basic on channel 55 to Digital Classic on channel 179
- Hallmark was migrated from Expanded Basic on channel 68 to Digital Classic on channel 137
- WGN was migrated from Limited Basic on channel 21 to Limited Basic on channel 24.
- Comcast showed a Starz! free preview from September 15 through September 18, 2006.
- Comcast launched WDCW The Tube on channel 207

#### October 2006

- Comcast launched FearNet, a Video on demand service on channel 166
- Comcast showed a free preview of Showtime and it's multiplex channels from October 6 to October 9, 2006

November 2006

- Comcast switched Spice Hot programming to Spice Xcess
- Comcast launched MASN (Mid-Atlantic Sports Network) to channel 62 on our
- Expanded Basic lineup.
- style migrated from channel 51 to channel 118 on our Digital Classic lineup.
- Sci-Fi migrated from channel 62 to channel 51 on our Expanded Basic lineup.
- AZN migrated from channel 108 to channel 191 on our Digital Classic line-up.
- Comcast launched the Adult Guide on channel 540

December 2006

• Comcast launched VodLink, an interactive portal that allowed customers to go to a main menu to choose TV listings, and Video on Demand.

- Comcast deleted In Demand 2 and added MHD, High Definition programming to channel 227.
- Comcast launched Fox Reality TV, as a Digital Classic Service on channel 108.

January 2007

- Comcast added channel 750 to the NBA League Pass Package
- Comcast launched Comcast Sports HD on channel 254

#### February 2007

Comcast launched National Geographic HD on channel 224

March 2007

- Comcast split channel 77, which regularly carries C-Span 2. Baseball preempts the programming when both the Nationals and Orioles are playing on the same day.
- Comcast launched c-Span 2, as a Limited channel on the Digital platform, appearing on channel 104
- Toon Disney in Espanol was migrated from channel 604 to channel 607
- Comcast launched ESPN Deports on channel 604
- Comcast migrated Encore East from a Digital plus service to a Digital Classic Service on channel 150

April 2007

- Comcast launched an additional MHz channel, WNVC Russia Today on channel 206, as a Limited Basic service on the Digital platform.
- Comcast added Games 11-14 to the Major League Baseball package.
- Comcast launched the Oxygen Channel, as a Digital Classic Service on channel 123

#### May 2007

 Comcast launched WQAW-LP TV Azteca, as a Limited Basic Service on the Digital Platform. The programming is available on channel 209 and through the Hispanic Package on channel 616

June 2007

- The NFL Network on channel 180 was migrated to the Sports Entertainment Package.
- Comcast launched WDCA-HD on channel 215, as a Limited Basic Service on the Digital Platform.



# **2007 ANNUAL REPORT**

# CUSTOMER OPINION SURVEY AUGUST 30, 2007

comcast.

2007 Comcast ALEXANDRIA Customer Surveys

### **Trend Overview**

- Comcast channel reception clarity and sports offerings are increasingly important components of customer perception of the value of their subscription.
- Several types of local Alexandria programming have become more appealing to area customers.
- Comcast customers not only remain very satisfied—they also are visiting the Comcast Local Office substantially more.
- Customers with issues feel Comcast is continuing to do a strong job resolving their problems.

# Comcast.

#### 2007 Comcast ALEXANDRIA Customer Surveys

The quality of Comcast channel reception and sports offerings drew a significantly higher score as relates to customer rationale for subscription.

2007		What is the major reason you subscribe to cable 1). television at this time?	2006	CHANGE FROM 2006
45.7%	366	1 MORE CHANNELS	39.8%	5. <b>9%</b>
7.2%	58	2 MOVIES	6.6%	0.7%
46.6%	373	3 BETTER RECEPTION	31.8%	14.7%
12.9%	103	4 PREMIUM SERVICES	7.6%	5.3%
17.0%	136	5 SPORTS	7.8%	9.2%
11.4%	91	6 OTHER	10.5%	0.8%
	1127	Total Responses		

A significantly larger number of customers (+25.8%) reported using their Comcast service to view Alexandria City Council meetings (based on the segment of customers that view local access channels).

2007	2	2a). Have you ever watched an Alexandria City Council meeting?	2006	CHANGE FROM 2006
85.8%	1 <b>9</b> 9	1 YES	60.0%	25.8%
14.2%	33	2 NO	40.0%	-25.8%
0.0%	0	0 DK/NA/OA	0.0%	
	232	Total Responses		

Alexandria Public School programs are increasingly important to Comcast viewers, with an increase of 11.4% in 2007 compared to 2006.

2007	4	Have you ever watched any of the programming sponsored by the ic). Alexandria City Public Schools?	2006	CHANGE FROM 2006
32.2%	258	1 YES	20.8%	11.4%
67.8%	543	2 NO	79.2%	-11.4%
0.0%	0	0 DK/NA/OA	0.0%	
	801	Total Responses		

### Comcast.

#### 2007 Comcast ALEXANDRIA Customer Surveys

Of the segment of customers that view channel 69... 20 to 30% *more* viewers showed strong interest in local school sports, Civic/Informational programs, and current local events versus 2006.

	;	3).	Are you interested in any of the following categories of programming that currently shown on Channel 69?	t are	
2007	;	3a).	Local high school sports?	2006	Change From 2006
55.8%	92	1	YES	25.5%	30.2%
44.2%	73	2	NO	74.5%	-30.2%
0.0%	0	0	DK/NA/OA	0.0%	0.0%
	165		Total Responses		
2007	;	3b).	Civic/Informational Shows?	2006	Change From 2006
<b>66</b> .1%	109	1	YES	35.1%	31.0%
33.9%	56	2	NO	64. <b>9%</b>	-31.0%
0.0%	0	0	DK/NA/OA	0.0%	0.0%
	165		Total Responses		
2007		3d).	. Current Local Events?	CHA 2006	nge from 2006
73. <b>9%</b>	12	21	YES	53.0%	20.9%

165 Total Responses

0 0 DK/NA/OA

43 2 NO

26.1%

0.0%

47.0%

0.0%

-20.9%

0.0%

# Comcast.

#### 2007 Comcast ALEXANDRIA Customer Surveys

Customers reported their visits to the local Comcast Office went up over 20% since 2006. Even with the increased in-office activity, Comcast customer satisfaction remained as strong as 2006.

2007		td). Have you ever visited the local Comcast Office?	2006	CHANGE FROM 2006
78.4%	628	1 YES	56.5%	21.9%
21.6%	173	2 NO	43.5%	-21.9%
0.0%	0	0 DK/NA/OA	0.0%	0.0%
	801	Total Responses		
2007	,	1e). Were you satisfied with the quality of service you received?	2006	CHANGE FROM 2006
88.9%	558	1 YES	89.5%	-0.6%
11.1%	70	2 NO	10.5%	0.6%
0.0%	0	0 DK/NA/OA	0.0%	0.0%
	628	Total Responses		

Of the customer segment that is interested in additional channels being added to their Comcast service, 12% less of this subset is not willing to pay more for the new service as compared to the 2006 response.

2007	1	If Comcast added the new channels that you would like to see, Ic). would you be willing to pay more for the service?	2006	CHANGE FROM 2006
34.0%	81	1 YES	46.1%	-12.1%
66.0%	157	2 NO	53.9%	12.1%
0.0%	0	0 DK/NA/OA	0.0%	0.0%
	238	Total Responses		

Roberts and States





#### 801 Total Surveys

#### SECTION ONE - BACKGROUND INFORMATION

- 1). What is the major reason you subscribe to cable television at this time?
- 45.7% 366 1 MORE CHANNELS
- 7.2% 58 2 MOVIES
- 46.6% 373 3 BETTER RECEPTION
- 12.9% 103 4 PREMIUM SERVICES
- 17.0% 136 5 SPORTS
- 11.4% 91 6 OTHER
  - 1127 Total Responses

#### SECTION TWO - ACCESS CHANNELS

#### SECTION TWO - ACCESS CHANNELS

- 1). Were you previously aware of these channels?
- 63.3% 507 1 YES
- 36.7% 294 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION TWO - ACCESS CHANNELS

Channel 70 is the local government access channel which provides brief announcements about upcoming government meetings and events, and broadcasts live City Council meetings, Planning Commission meetings, Board of Zoning Appeals meetings, and Board of Architectural Review meetings. Do you watch Channel 70 programming?

2). watch Channel 70 programming?

45.8%	232	1 YES
54.2%	275	2 NO
0.0%	0	0 DK/NA/OA

507 Total Responses

PAGE 1





#### SECTION TWO - ACCESS CHANNELS

- 2a). Have you ever watched an Alexandria City Council meeting?
- 85.8% 199 1 YES
- 14.2% 33 2 NO
- 0.0% 0 0 DK/NA/OA
  - 232 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- 2b). Have you ever watched a Saturday public hearing?
- 43.1% 100 1 YES
- 56.9% 132 2 NO
- 0.0% 0 0 DK/NA/OA
  - 232 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- 2c). Have you ever watched a Planning Commission meeting?
- 57.8% 134 1 YES
- 42.2% 98 2 NO
- 0.0% 0 0 DK/NA/OA
  - 232 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- 2d). Have you ever watched a Board of Zoning Appeals meeting?
- 42.2% 98 1 YES
- 57.8% 134 2 NO
- 0.0% 0 0 DK/NA/OA

232 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- Have you ever watched a Board of Architectural Review Old and Historic District 2e). meeting?
- 36.6% 85 1 YES
- 63.4% 147 2 NO
- 0.0% 0 0 DK/NA/OA
  - 232 Total Responses

PAGE 2





#### SECTION TWO - ACCESS CHANNELS

- Have you ever watched a Board of Architectural Review Parker-Gray District
- 2f). meeting?
- 18.1% 42 1 YES
- 81.9% 190 2 NO
- 0.0% 0 0 DK/NA/OA
  - 232 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- 2g). Have you ever watched a School Board meeting?
- 58.2% 135 1 YES
- 41.8% 97 2 NO
- 0.0% 0 0 DK/NA/OA
  - 232 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- Would you be interested in specific programming which highlights City services, 3). programs and/or projects?
- 30.3% 243 1 YES
- 69.7% 558 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION TWO - ACCESS CHANNELS

Channels 71, 72, and 73 are the educational access channels. Channel 72 broadcasts telecourses from Northern Virginia Community College. Channel 73 broadcasts telecourses from George Mason University and Channel 71 for cable ready TVs is used by the Alexandria City Public School system.

- Have you ever watched the telecourses sponsored by Northern Virginia 4a). Community College?
- 28.8% 231 1 YES 71.2% 570 2 NO 0.0% 0 0 DK/NA/OA 801 Total Responses

4).







#### SECTION TWO - ACCESS CHANNELS

- 4b). Have you ever watched the telecourses sponsored by George Mason University?
- 29.7% 238 1 YES
- 70.3% 563 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- Have you ever watched any of the programming sponsored by the Alexandria City 4c). Public Schools?
- 32.2% 258 1 YES
- 67.8% 543 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION TWO - ACCESS CHANNELS

- 4d). Do you presently have children enrolled in the Alexandria Public School System?
- 15.0% 120 1 YES
- 85.0% 681 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION TWO - ACCESS CHANNELS

Instructional programming can also be seen on MHZ2/Channel 205. Have you everwatched instructional programming sponsored by MHZ2/Channel 205?

	801	Total Responses
0.0%	0	0 DK/NA/OA
80.3%	643	2 NO
19.7%	158	1 YES





SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

Comcast produces local programming as a public service to Alexandrians. These programs are shown on Channel 69 in the evenings during the week and on the weekends.

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

1). Have you ever watched the programming on Channel 69?

20.6% 165 1 YES
-----------------

- 79.4% 636 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

Have you ever watched the Community Bulletin Board on Channel 69 from 10:00 2). am to 5:30 am daily?

63.0%	104	1 YES
37.0%	61	2 NO
0.0%	0	0 DK/NA/OA

165 Total Responses

ob i otal Responses

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

Are you interested in any of the following categories of programming that are 3). currently shown on Channel 69?

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69 - INTEREST

- 3a). Local high school sports?
- 55.8% 92 1 YES
- 44.2% 73 2 NO
- 0.0% 0 0 DK/NA/OA
  - 165 Total Responses

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69 - INTEREST 3b). Civic/Informational Shows?

- 66.1% 109 1 YES
- 33.9% 56 2 NO
- 0.0% 0 0 DK/NA/OA
  - 165 Total Responses

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### (comcast



#### 2007 Comcast Alexandria Survey

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69 - INTEREST 3c). Entertainment Shows?

- 60.0% 99 1 YES
- 40.0% 66 2 NO
- 0.0% 0 0 DK/NA/OA
  - 165 Total Responses

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69 - INTEREST 3d). Current Local Events?

- 73.9% 122 1 YES
- 26.1% 43 2 NO
- 0.0% 0 0 DK/NA/OA
  - 165 Total Responses

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

What are the biggest obstacles to your watching more programs on the PEG 3aa). channels?

- 2.55% 17 1 TECHNICAL QUALITY OF PROGRAMS
- 47.08% 314 2 LACK OF INTEREST IN TOPICS
- 35.23% 235 3 LACK OF PROGRAM LISTING INFO
- 15.14% 101 4 OTHER
  - 667 Total Responses

#### SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

3bb). Have you ever considered producing a show on the Community Channel?

- 12.4% 99 1 YES 87.6% 702 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

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SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

Are you aware that Comcast conducts Community Programming Volunteer 3cc). Operations classes in television production for a nominal fee?

23.1%	185	1 YES
70.00/	616	0 10

l	6.9%	6	616	)	2	NO	

0.0% 0 0 DK/NA/OA

801 Total Responses

SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69 3dd). Would you be interested in taking such a class?

	801	Total Responses
0.0%	0	0 DK/NA/OA
81.4%	652	2 NO
18.6%	149	1 YES

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

Have you ever called the cable company for any reason other than initiating

- 1). serivce?
- 56.6% 453 1 YES
- 43.4% 348 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

- 1a). Was your call answered within a reasonable period of time?
- 83.9% 380 1 YES
- 16.1% 73 2 NO
- 0.0% 0 0 DK/NA/OA
  - 453 Total Responses





#### SECTION FOUR - SERVICE TO SUBSCRIBERS

- 1b). Was the person with whom you spoke courteous?
- 91.6% 415 1 YES
- 8.4% 38 2 NO
- 0.0% 0 0 DK/NA/OA
  - 453 Total Responses

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

- 1c). Was your question or problem resolved?
- 74.6% 338 1 YES
- 25.4% 115 2 NO
- 0.0% 0 0 DK/NA/OA
  - 453 Total Responses

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

- 1d). Have you ever visited the local Comcast Office?
- 78.4% 628 1 YES
- 21.6% 173 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

- 1e). Were you satisfied with the quality of service you received?
- 86.6% 694 1 YES
- 13.4% 107 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses







#### 2007 Comcast Alexandria Survey

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

Using a scale from 1 to 5, with 1 meaning "extremely dissatisfied" and 5 meaning "extremely satisfied," please select the number that best represents your 2). satisfaction with the following customer service aspects of the system.

- 3.870 3173 a). INSTALLATION OF CABLE IN YOUR HOME
- 3.863 3168 b). PICTURE QUALITY
- 3.757 3081 c). SOUND QUALITY
- 3.623 2971 d). RESPONSE TO INQUIRIES OR PROBLEMS
- 3.882 3183 e). NUMBER OF CHANNELS PROVIDED
- 3.796 3113 f). OVERALL CUSTOMER SERVICE
- 3.799

SECTION FIVE - PROGRAMMING SURVEY

#### SECTION FIVE - PROGRAMMING SURVEY

- Are there any channels that are not presently offered that you or others in your 1a). household would like to see added to our system?
- 29.7% 238 1 YES
- 70.3% 563 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION FIVE - PROGRAMMING SURVEY

1b). If yes, which channel(s) would you like to see added to the system? PLEASE SEE DATA SHEET

#### SECTION FIVE - PROGRAMMING SURVEY

- If Comcast added the new channels that you would like to see, would you be
- 1c). willing to pay more for the service?

34.0%	81	1 YES
-------	----	-------

10

- 0.0% 0 0 DK/NA/OA
  - 238 Total Responses

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#### 2007 Comcast Alexandria Survey

#### SECTION SIX - ACCESSIBILITY SURVEY

#### SECTION SIX - ACCESSIBILITY SURVEY

Are there any persons in your household with hearing or vision disabilities which 1). interferes with their enjoyment of cable TV?

4.9% 39 1 YE	S
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- 95.1% 762 2 NO
- 0.0% 0 0 DK/NA/OA
  - 801 Total Responses

#### SECTION SIX - ACCESSIBILITY SURVEY

- Are there any persons in your household with mobile, manual or dexterity 2). impairments that would interfere with their ability to use cable TV controls?
- 46.2% 18 1 YES
- 53.8% 21 2 NO
- 0.0% 0 0 DK/NA/OA
  - 39 Total Responses

#### SECTION SIX - ACCESSIBILITY SURVEY

3). Have any of these disabilities or impairments affected this person's ability to:

#### SECTION SIX - ACCESSIBILITY SURVEY

- 3a). Access/change channels on cable?
- 22.2% 4 1 YES
- 77.8% 14 2 NO
- 0.0% 0 0 DK/NA/OA
  - 18 Total Responses

#### SECTION SIX - ACCESSIBILITY SURVEY

- 3b). Discuss a bill with Comcast?
- 50.0% 2 1 YES
- 50.0% 2 2 NO
- 0.0% 0 0 DK/NA/OA
  - 4 Total Responses

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### 2007 Comcast Alexandria Survey

#### SECTION SIX - ACCESSIBILITY SURVEY

- 3c). Find out what programming is on cable?
- 25.0% 1 1 YES
- 75.0% 3 2 NO
- 0.0% 0 0 DK/NA/OA
  - 4 Total Responses

#### SECTION SIX - ACCESSIBILITY SURVEY

3d). Understand the dialog on programs?

0.0% 0 1 YES
--------------

- 100.0% 4 2 NO
  - 0.0% 0 0 DK/NA/OA
    - 4 Total Responses

#### SECTION SIX - ACCESSIBILITY SURVEY

3e). Follow the program on cable?

0.0%	0	1 YES
100.0%	4	2 NO

- 0.0% 0 0 DK/NA/OA
  - 4 Total Responses

#### SECTION FOUR - SERVICE TO SUBSCRIBERS

- 1e). Were you satisfied with the quality of service you received? \*\*\*\*PARSED TO THE 628 ACTUAL VISITORS IN Sec 4 1D.
- 88.9% 558 1 YES
- 11.1% 70 2 NO
- 0.0% 0 0 DK/NA/OA
  - 628 Total Responses

and a sub-



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# SURVEY METHODOLOGY

All of the following charts and graphs are based on responses from a structured phone survey conducted with a random probability sample of 801 Alexandria active cable television customers. Calling began on July 6th and was completed August 3rd, 2007. Calls were placed during a mix of daytime and evening hours on weekdays as well as daytimes on Saturdays.

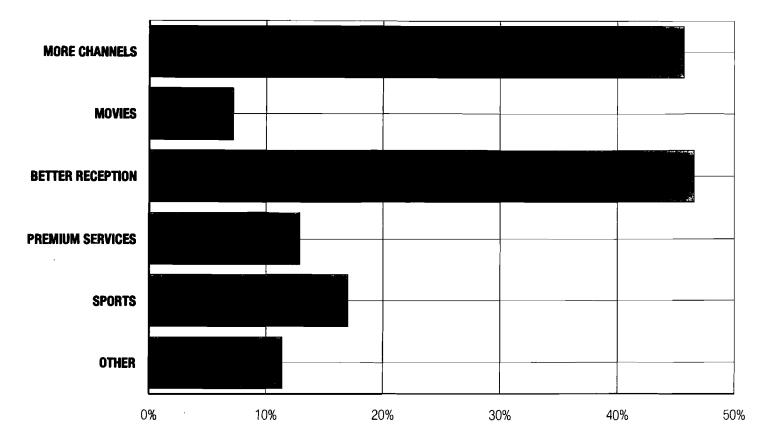
All surveys were completed from Q7's fully supervised calling center. Prior to the beginning of data collection, all surveyors were trained specifically on each survey question and its response set. At least once per shift, each surveyor was monitored on-line while conducting an actual survey. Some of the questions asked were based on previous versions of the same study completed in earlier years.

In order to generate a random probability of households, the calling list provided to Q7 was randomized prior to outbound dialing. The completed sample response includes 801 customers. This sample size will generate data useful in making business decisions based on commonly accepted statistical norms at the 95% confidence level with a margin of error of +/-3.44%, assuming an overall population of approximately 65,000.



2007 Comcast Cable Television Subscriber Survey - Alexandric Matures

What is the major reason(s) you subscribe to cable television at this time?





What is the major reason you subscribe to cable television at this time? "Other" answers...

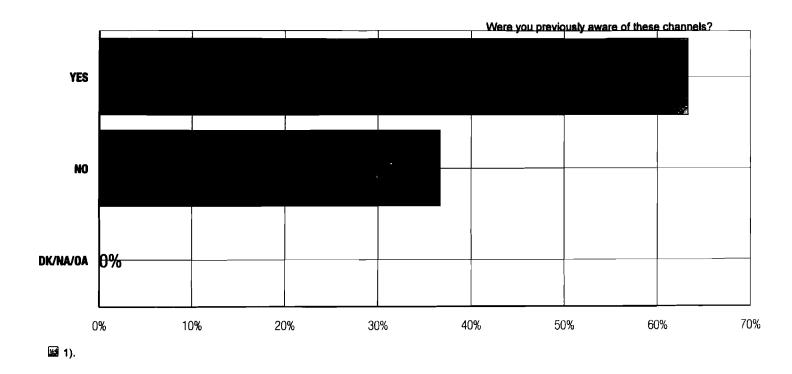
Reason	Answers
Only Option	23
Cable/Internet/Phone Package Price	5
Price	5
Internet Access	4
News	4
Better Programming Offers Over Competitor	3
Community/Government Programming	2
High Definition Channels	2
Medical Programs	1
SciFi Channel	1
Children Wanted Cable	1
History Channel	1
DVR Capabilities	1
NPR	1
On Demand Features	1



### 2007 Comcast Cable Television Subscriber Survey - Alexandrua Manne

Comcast currently has five access channels; The City Government Access Channel on Channel 70, The Educational Access Channels on 71,72, 73 and The Community Channel on Channel 69.

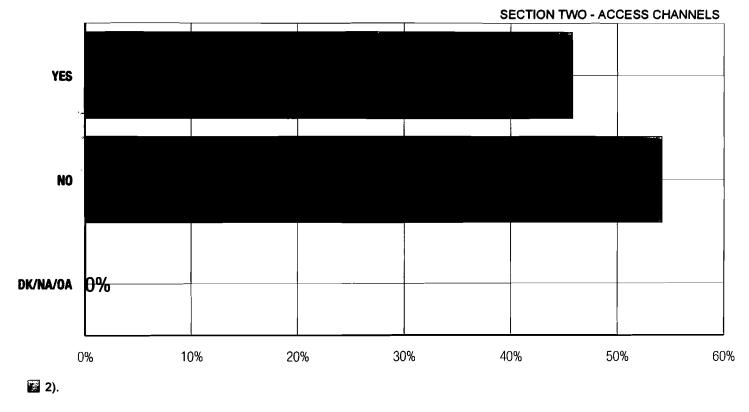
# Were you previously aware of these channels?



2007 Comcast Cable Television Subscriber Survey - Alexandrase (Instance

Channel 70 is the local government access channel which provides brief announcements about upcoming government meetings and events, and broadcasts live City Council meetings, Planning Commission meetings, Board of Zoning Appeals meetings, and Board of Architectural Review meetings.

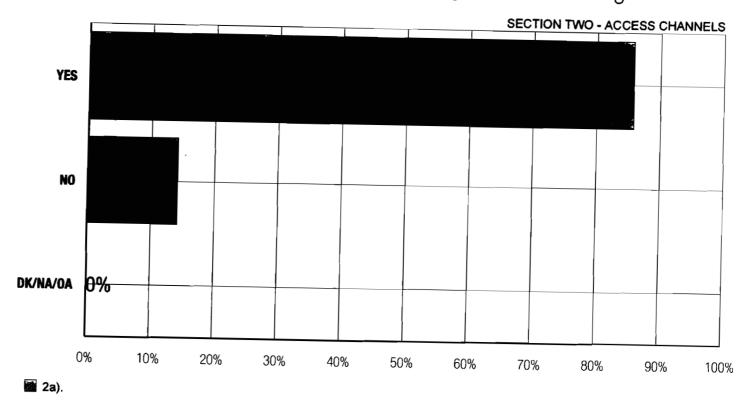
Do you watch Channel 70 programming?



(Comcast

2007 Comcast Cable Television Subscriber Survey - Alexander and the

Have you ever watched an Alexandria City Council meeting?

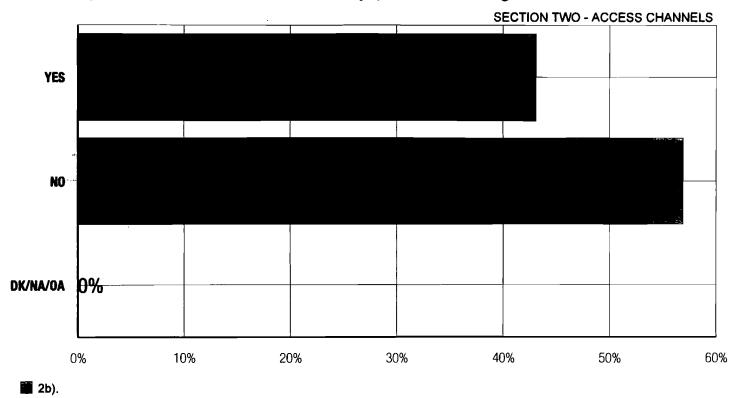


(comcast

7

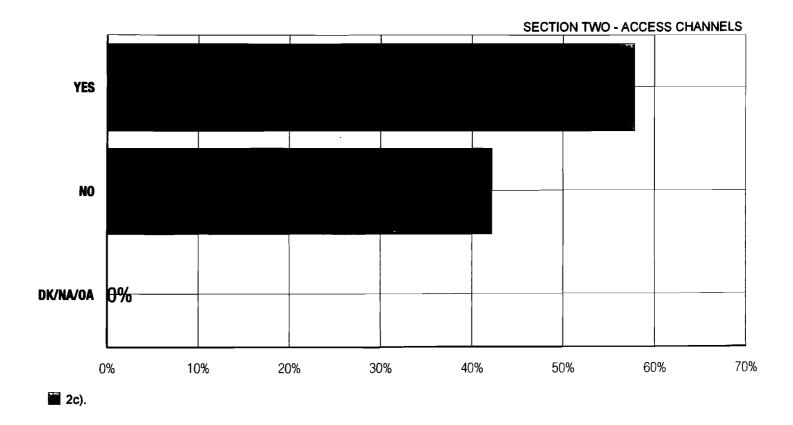
2007 Comcast Cable Television Subscriber Survey - Alexandria Micron

Have you ever watched a Saturday public hearing?



2007 Comcast Cable Television Subscriber Survey - Alexandrus Marine

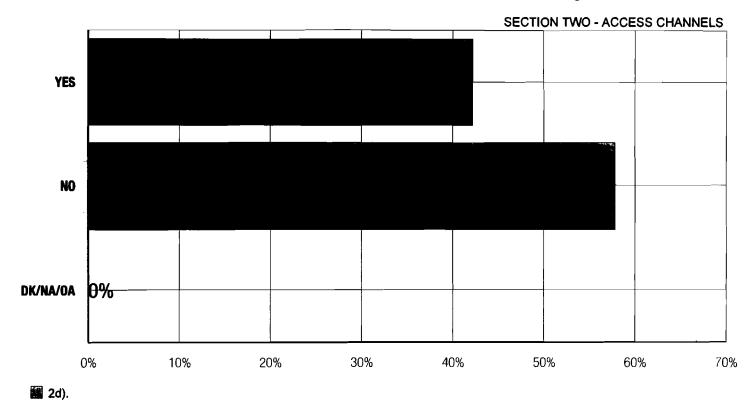
Have you ever watched a Planning Commission meeting?



(comcast.

THE REPORT OF THE PROPERTY OF THE REPORT OF THE PROPERTY OF TH

Have you ever watched a Board of Zoning Appeals meeting?



(Comcast

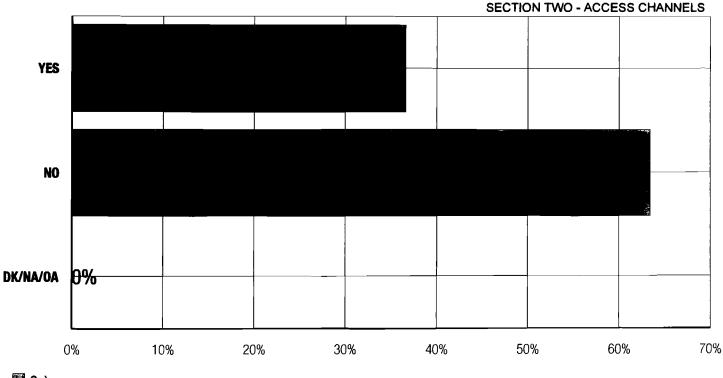
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2007 Comcast Cable Television Subscriber Survey - Alexandras Methods

Have you ever watched a Board of Architectural Review - Old and Historic District meeting?



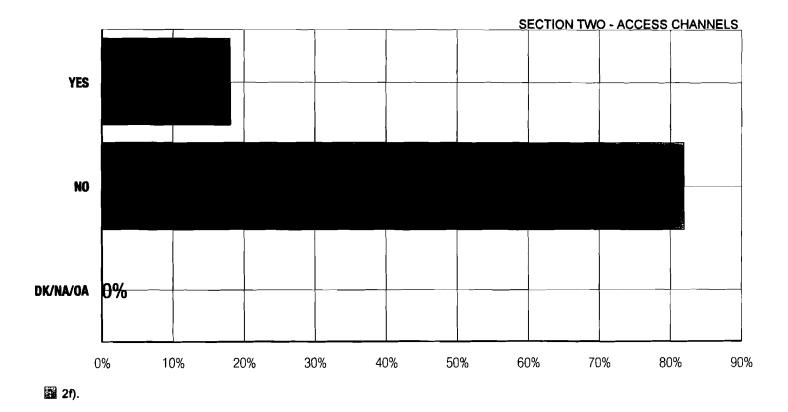
🎬 2e).

(comcast.

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2007 Comcast Cable Television Subscriber Survey - Alexandrase Market

Have you ever watched a Board of Architectural Review -Parker-Gray District meeting?

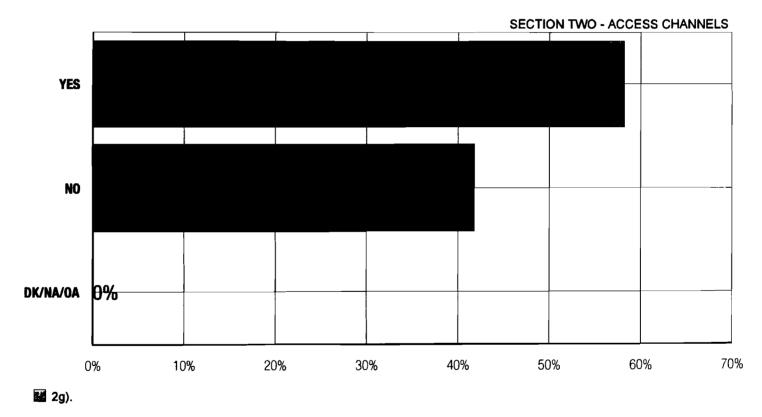


(Comcast

一些 如何的 印度的 AND WRITE 机出现 医血管 机合成 计正式 计可以 化乙烯

2007 Comcast Cable Television Subscriber Survey - Alexandric Varante

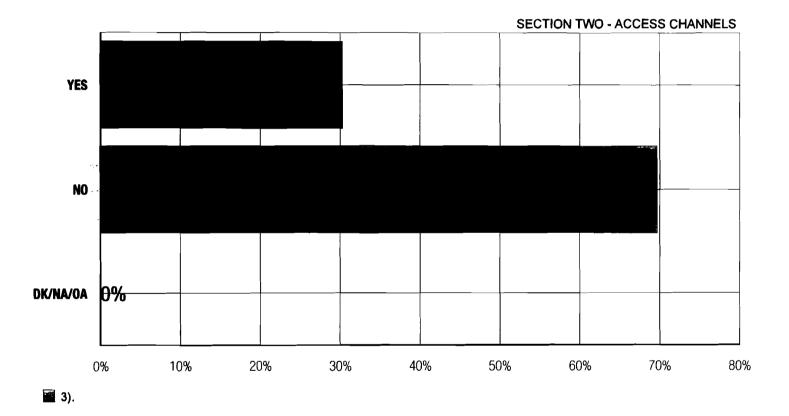
Have you ever watched a School Board meeting?



Comcast.

2007 Comcast Cable Television Subscriber Survey - Alexandra and the second

Would you be interested in specific programming that highlights City services, programs or projects?



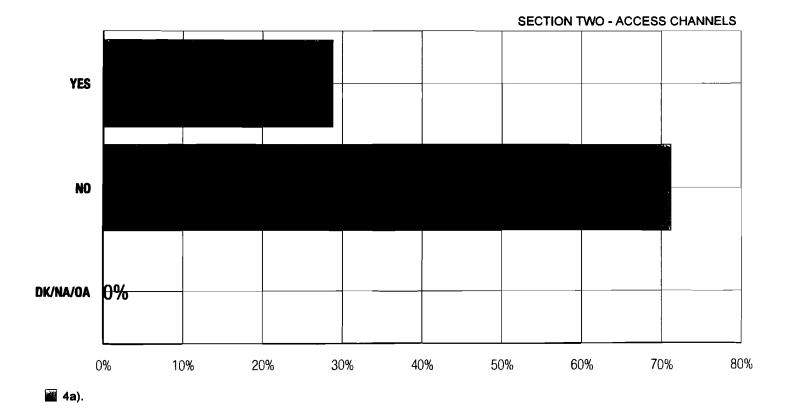
(Comcast

一些运行的 化成化物的物料 化压缩合金 公别的 微量 动行动 人物

### 2007 Comcast Cable Television subscriber Survey - Alexandra Minana

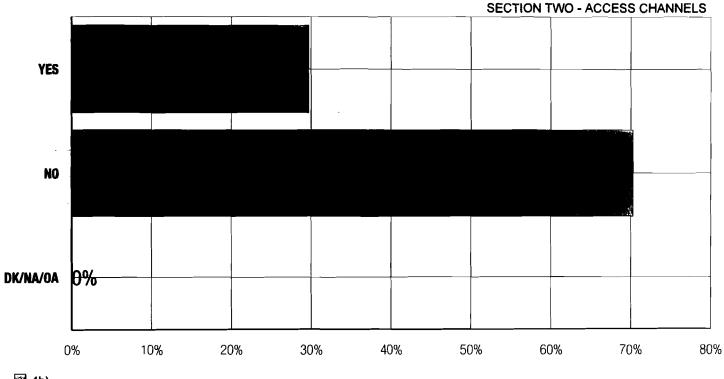
Channels 71, 72 and 73 are the educational access channels. Channel 72 broadcasts telecourses from Northern Virginia Community College. Channel 73 broadcasts telecourses from George Mason University and Channel 71 for cable ready TV's is used by the Alexandria City Public School System.

Have you ever watched the telecourses sponsored by Northern Virginia Community College?



Comcast.

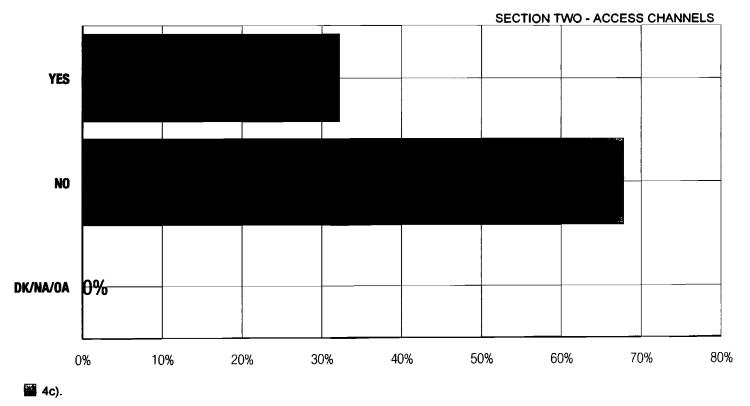
Have you ever watched the telecourses sponsored by George Mason University?



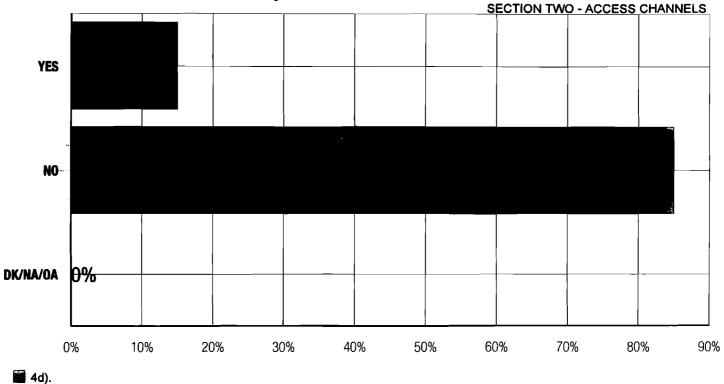
🎬 4b).

(comcast

Have you ever watched any of the programming sponsored by the Alexandria City Public School?

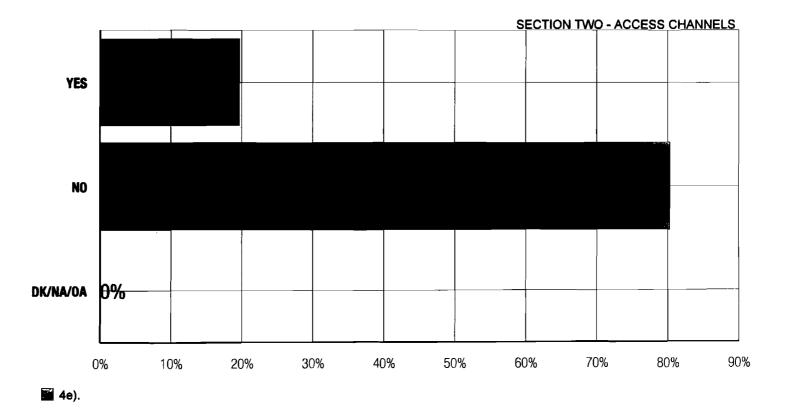


Do you presently have children enrolled in the Alexandria Public School System?



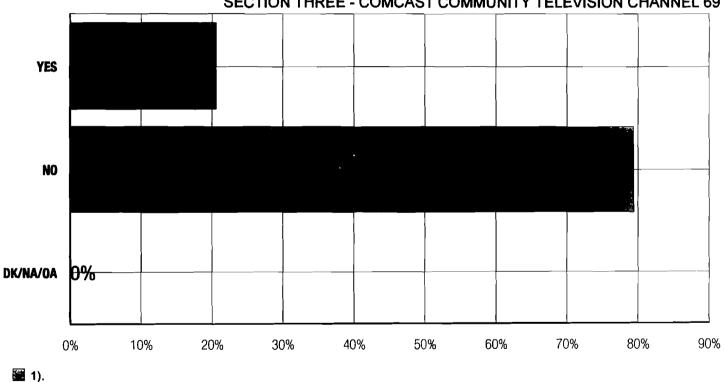
2007 Comcast Cable Television Subscriber Survey - Alexandra Advance

Instructional programming can also be seen on MHZ2/Channel 205. Have you ever watched instructional programming sponsored by MHZ2/Channel 205?



Comcast produces local programming as a public service to Alexandrians. These programs are shown on Channel 69 in the evenings during the week and on the weekends.

Have you ever watched the programming on Channel 69?



SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69

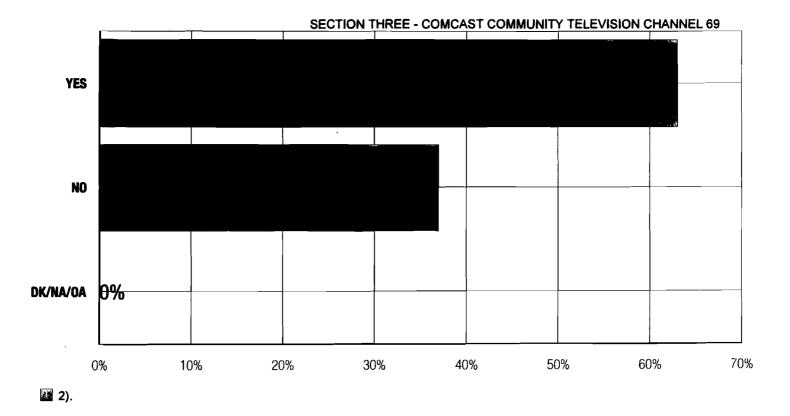
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2007 Comcast Cable Television Subscriber Survey - Alexander of the stand

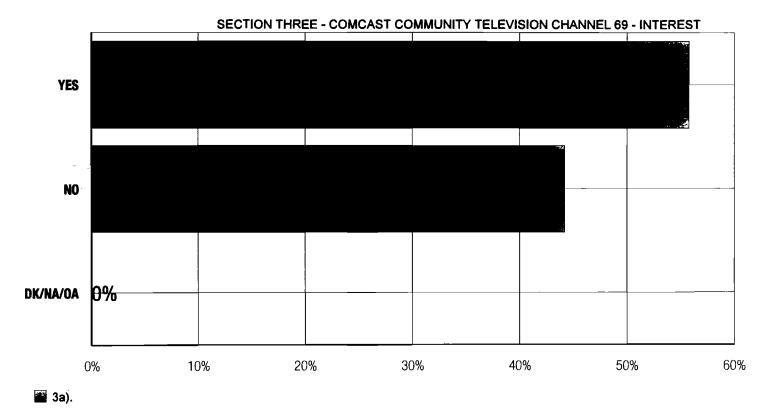
Have you ever watched the Community Bulletin Board on Channel 69 from 10:00 am to 5:30 am daily?



Comcast.

小师子中相应事机INVBKL相观的LAC上 专题 在教士中的公式的

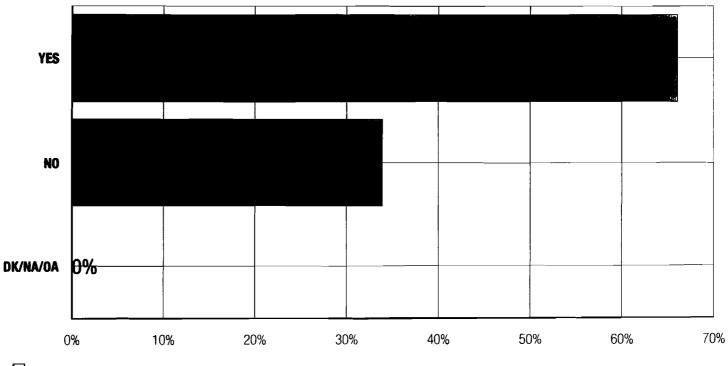
Are you interested in any of the following categories of programming that are currently shown on Channel 69... Local high school sports?



(comcast.

## 2007 Comcast Cable Television Subscriber Survey - Alexandria - Viteman

Are you interested in any of the following categories of programming that are currently shown on Channel 69... Civic/Informational Shows?



SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69 - INTEREST

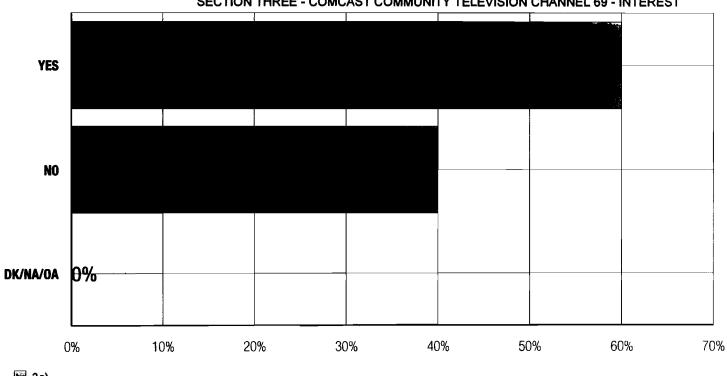
3b).

(comcast

Are you interested in any of the following categories of programming that are currently shown on Channel 69...

# **Entertainment Shows?**

,



SECTION THREE - COMCAST COMMUNITY TELEVISION CHANNEL 69 - INTEREST

📓 3c).

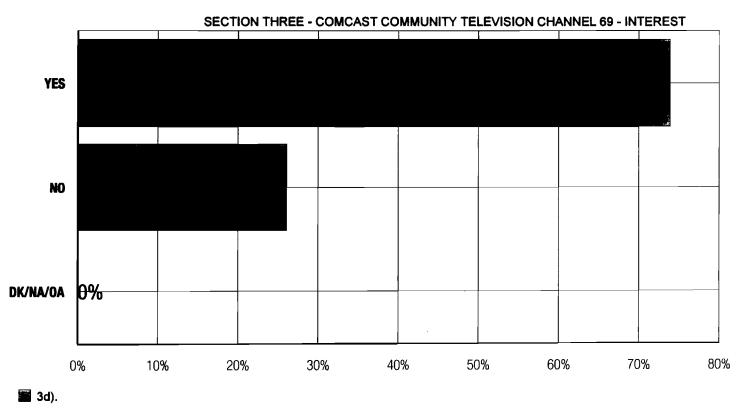
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2011年1月1日1日に形成1月1日相当成1月1日 日 第二次 新闻 一点にパンスの

### 2007 Comcast Cable Television Subscriber Survey - Alexandrue Justices

Are you interested in any of the following categories of programming that are currently shown on Channel 69...

# Current Local Events?

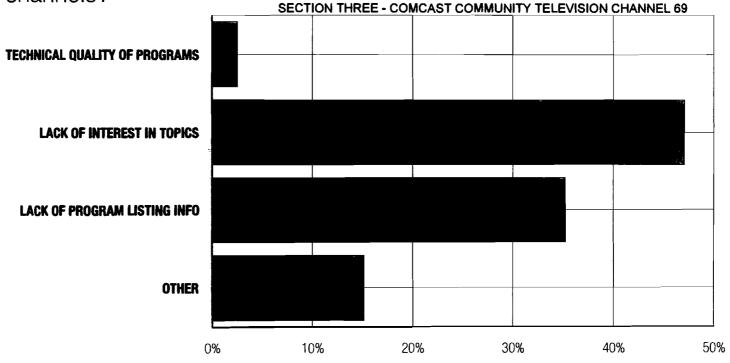


(comcast.

○中心、京和広志的WRKEF研研化中学 1 等別でに取 1 765 8 5260

2007 Comcast Cable Television Subscriber Survey - Alexandras Micros

What are the biggest obstacles to your watching more programs on the PEG channels?



🎬 3aa).



一些玩,你有的你的MMM目标得到你的事件。你就在你们你必须没知

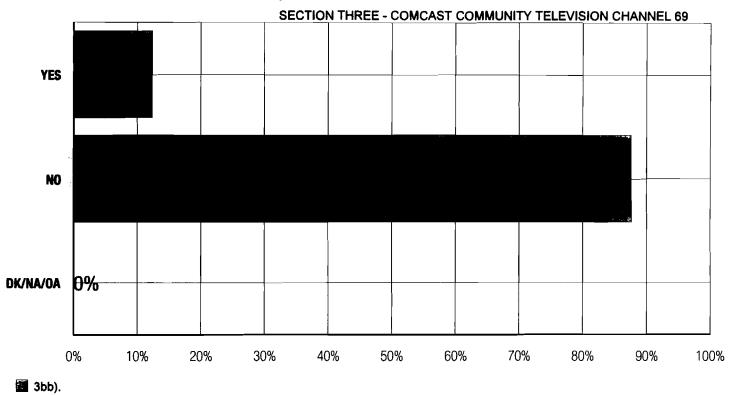
2007 Comcast Cable Television Subscriber Survey - Alexandria Analyse

What are the biggest obstacles to your watching more programs on the PEG channels? 'Other' answers...

Reason	Answers
<b>Technical Quality</b>	17
Lack of Interest	453
Lack of Information on	
What/When Programs Air	331
Other	0



Have you ever considered producing a show on the Community Channel?

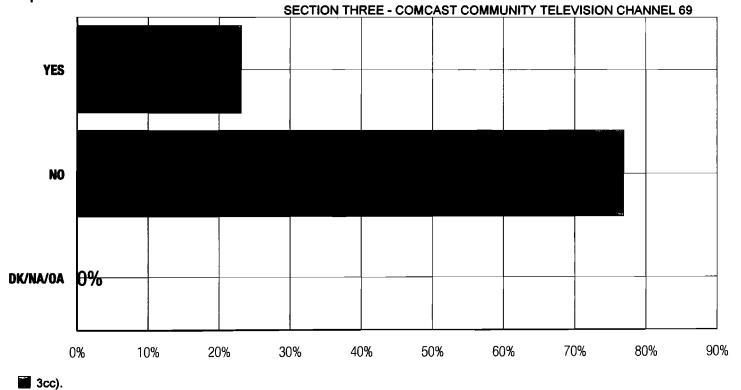


Comcast.

(1) (1) 使我就的脚都瞅着我说了你吗?」 你就是已晚一下了吗? 20)

2007 Comcast Cable Television Subscriber Survey - Alexandria Arcane

Are you aware that Comcast conducts Community Programming Volunteer Operations classes in television production for a nominal fee?

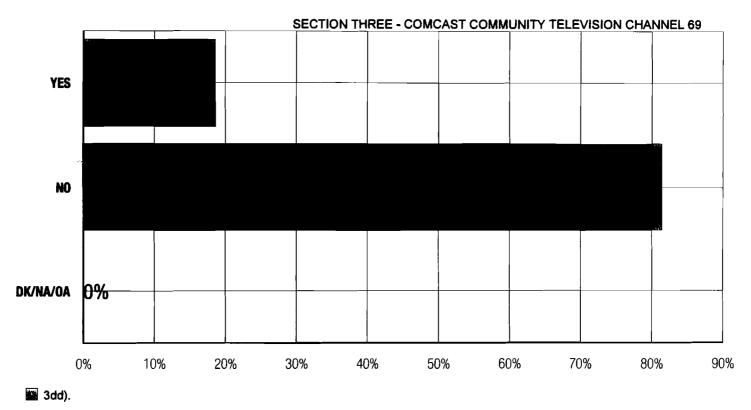


(comcast

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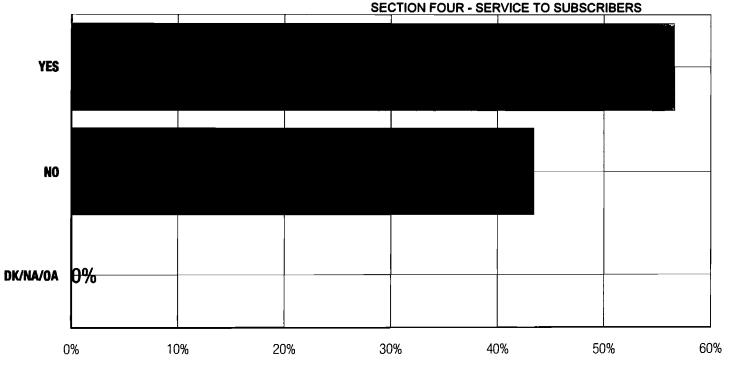
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Would you be interested in taking such a class?



2007 Comcast Cable Television Subscriber Survey - Alexandrae Winner

Have you ever called the cable company for any reason other than initiating service?

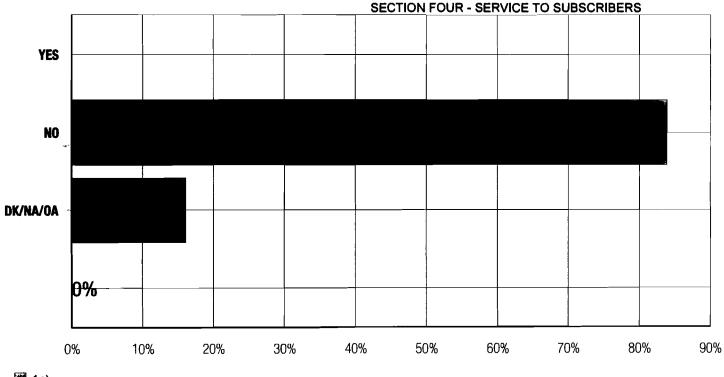


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Comcast.

2007 Comcast Cable Television Subscriber Survey - Alexandros Medane

Was your call answered within a reasonable period of time?

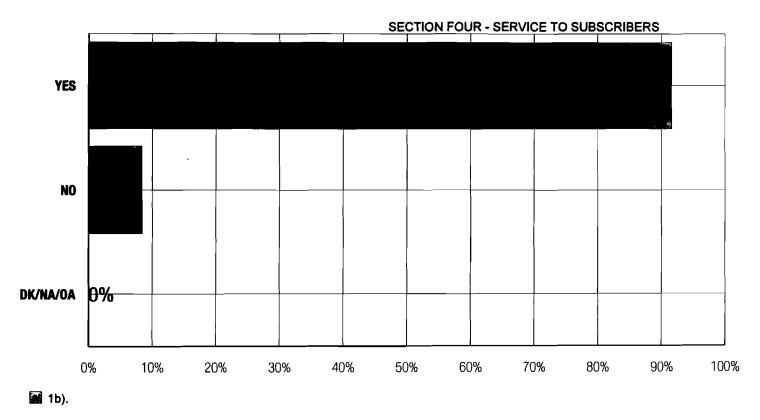


🎬 1a).

Comcast.

2007 Comcast Cable Television Subscriber Survey - Alexandra and the second

Was the person with whom you spoke courteous?



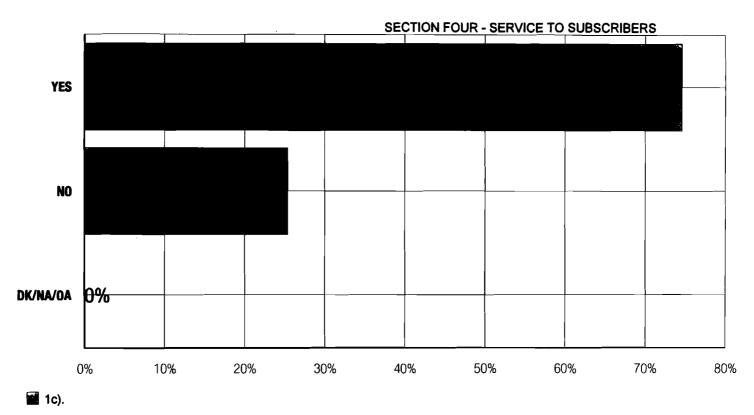
(comcast

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2007 Comcast Cable Television Subscriber Survey - Alexandrus Maranne

Was your question or problem resolved?

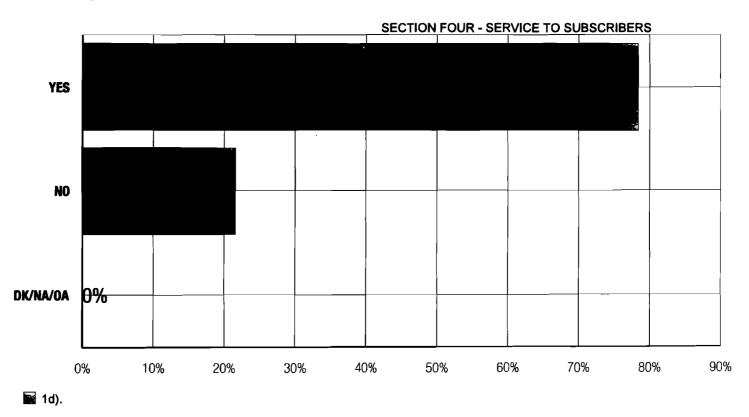
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Comcast.

一下户户, 你们最后来的 MARE 机出现的 生产学习 在 私 十一次运动 200

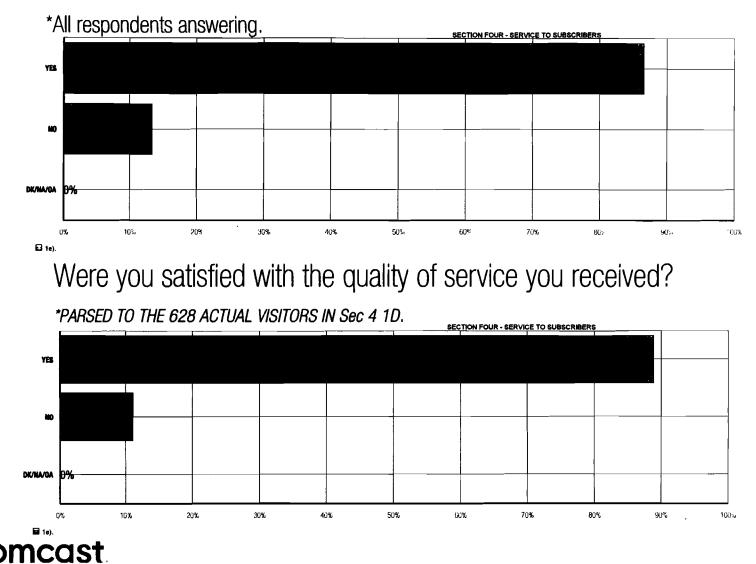
Have you ever visited the local Comcast Office?



(comcast

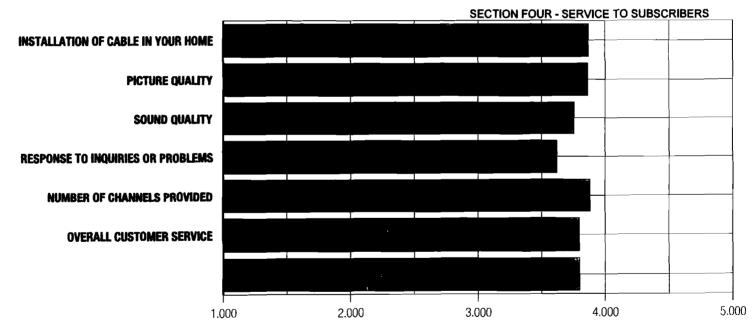
## 2007 Comcast Cable Television Subscriber Survey - Alexandran Viener

Were you satisfied with the quality of service you received?



## 2007 Comcast Cable Television Subscriber Survey - Alexandras Andrew

Using a scale from 1 to 5, with 1 meaning "extremely dissatisfied" and 5 meaning "extremely satisfied," please select the number that best represents your satisfaction with the following customer service aspects of the system.



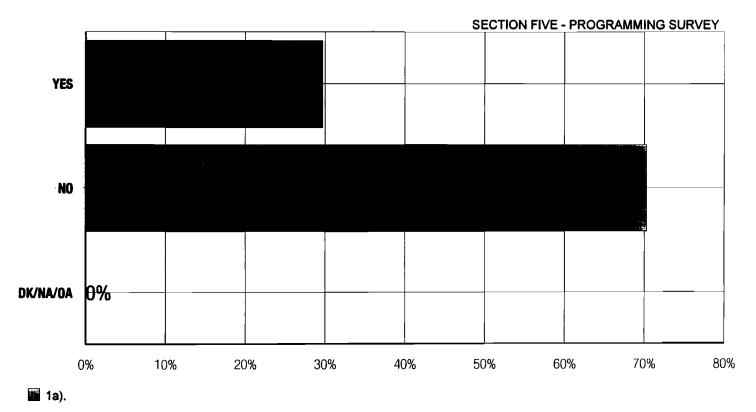
🖾 2).



(1) (1), (1) (10.18-00) MARE 推定的FE 1 (2), 新知道 F (1), (3) (3) (3)

2007 Comcast Cable Television Subscriber Survey - Alexandrus Streem

Are there any channels that are not presently offered that you or others in your household would like to see added to our system?



(Comcast.

## 2007 Comcast Cable Television Subscriber Survey - Alexandria Andreas

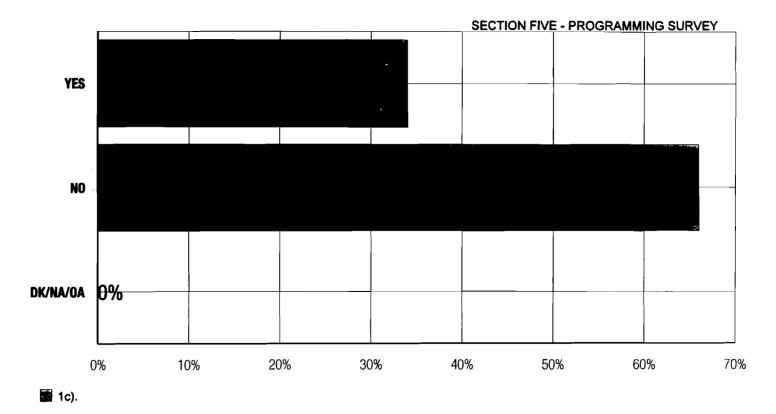
Charled	Requests	Charmet	Requests	Chaonel	Sequests	Channel	Requests
AMC	19	Hallmark	2	Coumpter Tech Programs	1	More Hockey Games	1
More Sports Channels	18	Life Time Movies	2	Cooking Channels	1	More informational channels	1
More Movie Channels	9	More Public Affairs	2	Country Music History	1	Movie Series Channels	1
NFL	8	More Music Channels	2	Court TV,	1	MTV2	1
HBO	7	Mystery Channel	2	Cricket	1	MTVX	1
History Channel	7	NASA Programming	2	Cspan 2	1	Nascar	1
Discovery Channel	6	Nature Channels	2	Deutche Welle	1	National PBS Channels	1
BBC	5	Noggin	2	Discovery Science	1	NBA TV	1
More HD Channels	5	More Religious Channels	2	Disney Channel	1	NOVA	1
National Geographic	5	More Style Channels	2	More Documentary Channels	1	Ntl. Soccer League Package	1
Showtime	5	More Western Movie Channels	2	More Educational Channels	1	New York Channel 9	1
Classical Arts	4	ZEETV	2	Entertainment Tonight	1	Outdoor Sports Shows	1
DIY	4	More International Channels	2	Enviromental Programs	1	Outdoors Show	1
Opera Channel	4	WGN	2	ESPN 360	1	Ovation	1
Oxygen	4	70's & 80's shows	1	Fine Living	1	Philipino Channel	1
Tennis Channel	4	Animal Planet	1	Fox Soccer	1	Sci Fi	1
Boomerang	3	Anime channel	1	FOX Sportsworld	1	Senior Citizens Channel	1
Catholic Channel	3	Arabic Only Channel	1	German/Italian Movie Channel	1	Sentana Sports	1
CMT Country Music	3	Art Channel	1	GOL TV	1	Soccer	1
CNN International	3	Asian Channels	1	Gotf	1	Sports Documentary	1
ESPNU	3	B4U	1	HERE TV	1	More Sports Packages	1
EWTN Religious Channel	3	BET Jazz	1	HGTV	1	SPROUT	1
More Internation Programming	3	Big Ten Network	1	Hindi Programming	1	St. Louis Cardinals Games	1
MHz Channel 25	3	Bloomberg Financial	1	History Channel in Spanish	1	Starz	1
Quality Spanish Programming	3	Brooke TV	1	More Home and Garden Shows	1	Sundance	1
SOAPNET	3	CST	1	Home Shopping Network #2	1	Tech TV	1
TCM	3	More Cartoons	1	Horse Racing	1	Travel Channel	1
TV 5 French Channel	3	Chicago Channels	1	Independent Film Channel	1	WOR	1
Battimore Primary Channels	2	More Childrens Programming	1_1	International Sports	1	WE Channel	1
BBC America	2	TBN Christian Channel	1	ISC Channel	1	WEALTH	1
Biography Channel	2	Classical Music	1	Italian News	1	WISDOM	1
Cinemax	2	CNN (spanish)	1	LOGO	1	WNVC Channel 56 Fairfax	1
CNN	2	College Sports free	1	MASN 2	1	WST-E	1
GMC	2	More Cornedy Programming	1	MASN Channel	1	-	

# 1b). If yes, which channel(s) would you like to see added to the system?

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2007 Comcast Cable Television Subscriber Survey - Alexandras Alexandras

If Comcast added the new channels that you would like to see, would you be willing to pay more for the service?

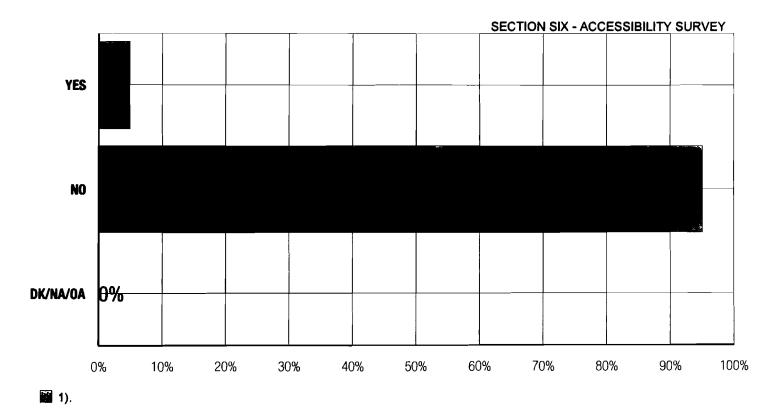


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2007 Comcast Cable Television Subscriber Survey - Alexandra Vinam

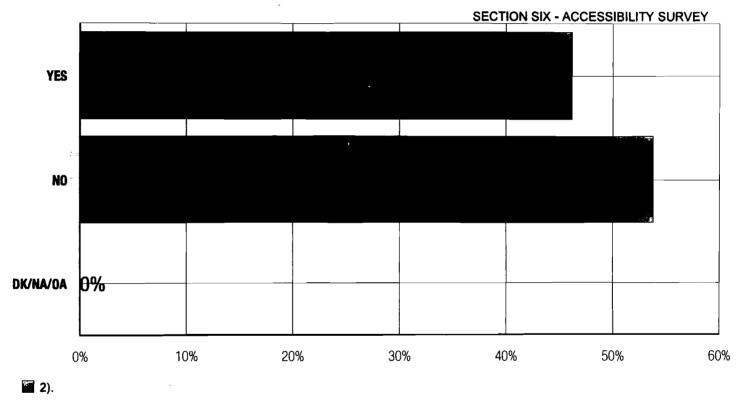
Are there any persons in your household with hearing or vision disabilities which interferes with their enjoyment of cable TV?



(comcast

2007 Comcast Cable Television Subscriber Survey - Alexander - Vierne

Are there any persons in your household with mobile, manual or dexterity impairments that would interfere with their ability to use cable TV controls?

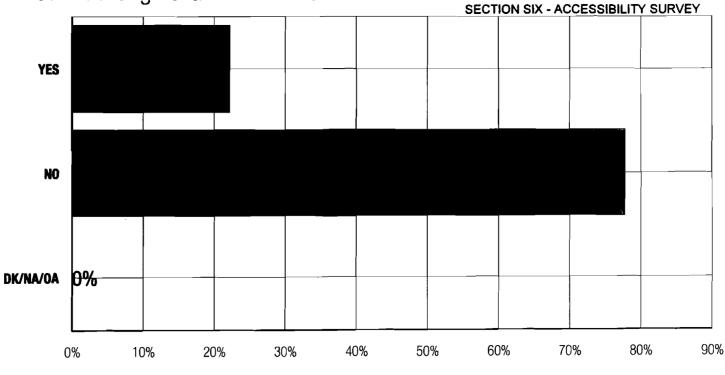


(comcast

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### 2007 Comcast Cable Television Subscriber Survey - Alexandria Marana

Have any of these disabilities or impairments affected this person's ability to:



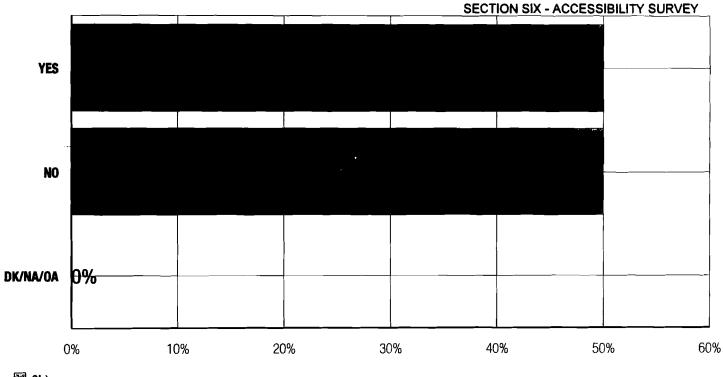
Access/change channels on cable?

📓 3a).

(Comcast

THE FREE MARKET RELABORET OF THE OWNER OWNER

Have any of these disabilities or impairments affected this person's ability to: Discuss a bill with Comcast?

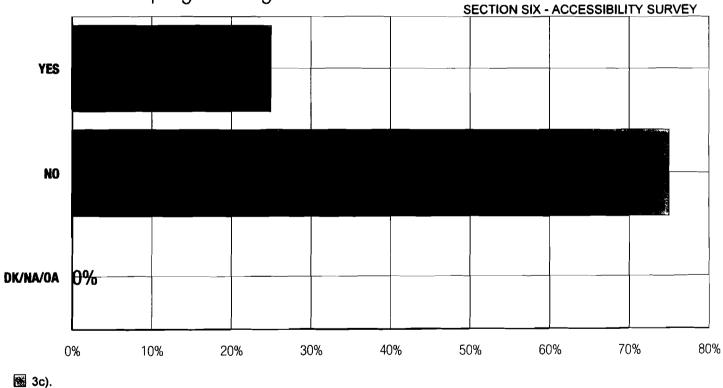


🞬 3b).

(comcast

2007 Comcast Cable Television Subscriber Survey - Alexander and a server

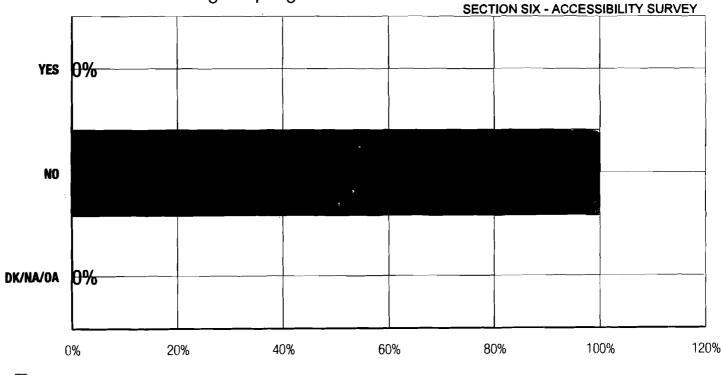
Have any of these disabilities or impairments affected this person's ability to: Find out what programming is on cable?



(comcast

- 2. 16、16、16、11、201 MARC 相互动行应的 主义的 化二氯化

Have any of these disabilities or impairments affected this person's ability to: Understand the dialog on programs?



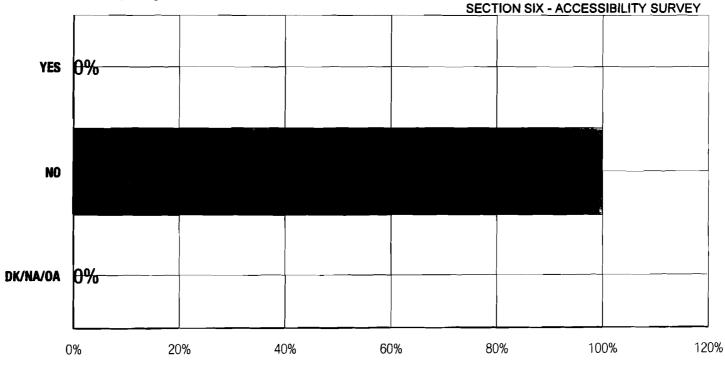
🚟 3d).

Comcast.

2007 Comcast Cable Television Subscriber Survey - Alexandras Andres

Have any of these disabilities or impairments affected this person's ability to:

Follow the program on cable?



🗶 3e).

(comcast.

2007 Comcast Cable Television Subscriber Survey - Alexander Moder

Section Six - Accessibility Survey - Question 3f.

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Have any of these disabilities or impairments affected this person's ability to: Other ... respondent comment detail.

No responses.

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# **2007 ANNUAL REPORT**

# PLANT REPORT FCC PROOF OF PERFORMANCE CLI FLY OVER SERVICE CALL REPORT OUTAGE REPORT

AUGUST 30, 2007

# (comcast.

Alexandria, Virginia Summer 2006 Proof of Performance

# (comcast.

Comcast of Alexandria, VA performed an FCC Proof-of-Performance test during the period of July 1<sup>st</sup> through August 31<sup>th</sup>, 2006.

The purpose of the test was to adhere to FCC requirements as set forth in the Federal Code of Regulations, Subpart K, Sections 76.601 and 76.605. The documents that follow are the results of the tests, as well as the requirements set forth by the FCC.



System: Comcast Location: Alexandria, Va.

System Community ID#: VA0220

Physical System ID#: 004923

Statement of Qualifications

#### Kelvin Webb: Technical Operations Manager

Experince: Kelvin has 21 years professional experience in the communications field, including, headend operations, fiber, systems network engineering and design. Experience includes over 11 years management of diverse projects and staff sizes varying from 18-20. For over four years I have been the Technical Operations Manager in the Northern Virginia Area.

#### Bobby Lane Title: Chief Engineer Alexandria / Arlington

Experience: Bobby has been in CATV for 25 years, with 5 years as technical manager. SCTE member since 1992. FCC proof testing 1991-2001 with Jones Communications and Comcast. NCTI Graduate with eight courses completed. Worked in the field for 10 years and in the Headend / field for 15 years.

#### Greg Harmon Title: Senior System Technician

Experience: Greg has been in CATV for 24 years, during which he has been a Service Technician for 3 years and a System Technician for 17 years. He has completed the NCTI Senior Master Technician program. He has participated in 20 FCC Proof of Performance tests. SCTE Member since 1989.

#### Previn Coe Title: System Technician

Experience: Previn has been a CATV Technician for 8 Years During witch he has been a Quality Control Technician for 1 year then a Service Technician for 1 year then promoted to System Technician for the last 6 years. He as completed the NCTI Installer and Service Technician Courses. He has participated in 10 FCC Proof of Performance tests.



Due to new Services and Analog Digital Simulcasting requirements channels 24,75,78,99 have been removed from the Analog line-up.

,



Test Point #1 85 S. Bragg St.

Test Point #2 Tower Ct. & Whitting St.

Test Point #3 1 N. Donelson St.

Test Point #4 Kenwood St. & Fern St.

Test Point #5 1121 Allison St.

Test Point #6 901 N. Kemper St. Test Point #7 528 Bellvue Pl.

Test Point #8 5109 Gardner Dr.

Test Point #9 418 Bashford Ln.

Test Point #10 5465 Colfax Ave.

Test Point #11 2357 N early St.

Test Point #12 3900 Wheeler Ave.



Equipment	Manufacturer	Model	Serial #	Last cal
		101100 001		
Cybertek Examiner	Com Sonics	101129-001	N/A	N/A
Spectrum Analyzer	Hewlett-Packard	8591C	3916A04384	10/17/05
Tunable Filter	Trilithic	<b>VF-4-88</b>	9330002	N/A
Pre-Amplifier	Hewlett-Packard	85905A	6093-0551	N/A
Signal Level Meter	Acterna	SDA-5000	0413408	09/01/05
Converter Box	Scientific Atlanta	8511300	GF505BFDN	N/A



#### C/N, CTB, CSO and HUM:

A 100' RG-6 drop was attached to a normal subscriber tap and connected to a Converter Box. A jumper was then connected from the Converter Box to the input of the pre-amp, which was connected to the RF input of the spectrum analyzer. The measurements were done using the Cybertek Examiner test gear in the headend to perform testing without interrupting customer services. The Cybertek examiner either inserts a VITS or removes a line of video depending on the test being performed.

#### 4.5 Audio Difference:

This measurement was made by the spectrum analyzer with the entire channel intact.

#### **In-band Frequency Response:**

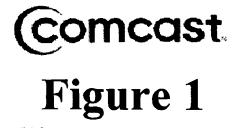
This test was done with the RG-6 drop connected to the converter box, which was connected to the RF input of the spectrum analyzer. At the headend, the Cybertek Examiner inserted the appropriate VITS.

#### 24-Hour Level Test:

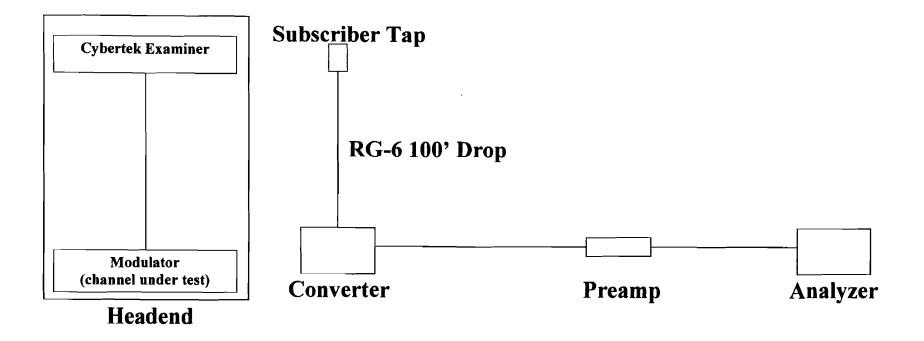
This test used the 100' RG-6 drop attached to the RF input of a Wavetek SDA5000 signal level meter.

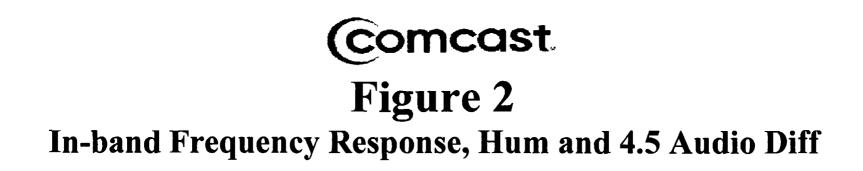
#### **Headend Color Test**

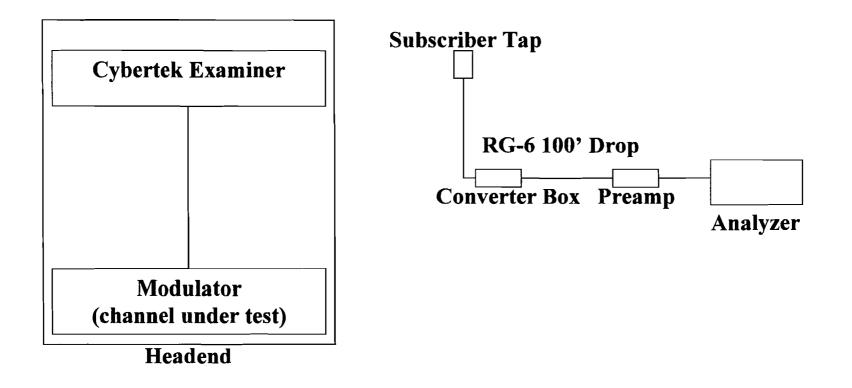
These tests were conducted with a VITS inserter connected to the modulator under test using the FCC composite test signal. A jumper was then run from the headend test point to a signal down converter, which was connected to a precision demodulator. The video output of the precision demodulator was then connected to the video input on a VM700A. All color tests were done using the VM700A.

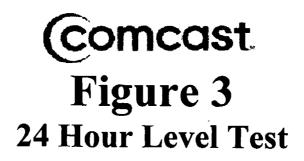


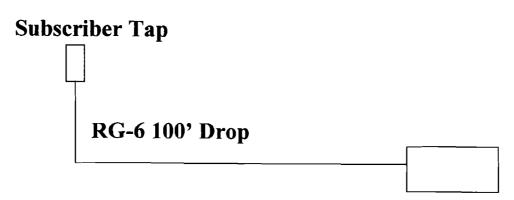
C/N, CTB, CSO











**Signal Meter** 



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

#### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be l

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

49326 SUBS

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

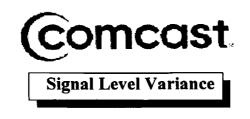
The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

### Test Point #1

#### Comedat

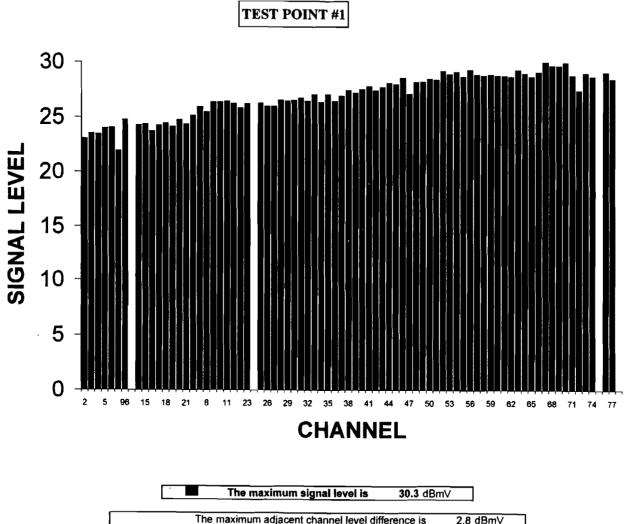
85 S. Bragg St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

	Date: 08/3	0/06	Time: 6:07	' pm	Temp:78					
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	1.2	0.8	72	68.8	48.8	4.5000			
	95	1.8	0.5	68.5	64.4	52.8	4.5000			
	21	0.9	0.8	75.6	57.8	51.1	4.5001			
	8	1.5	0.5	68.5	60.7	51.3	4.5001			
	28	1.1	0.7	60.5	57.6	50.7	4.5000			
	32	0.8	0.7	62	64.2	50.1	4.5001			
	47	0.9	0.7	70.4	59	51	4.5000			
	58	0.8	0.7	64.6	55.2	50.1	4.5000			
	72	1.1	0.9	62.7	55.4	46.7	4.5000			
Minimum v	Minimum values:		0.5	60.5	55.2	46.7	4.5000			
Maximum	Maximum values:		0.9	75.6	68.8	52.8	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum adjacent channel level difference is	2.8 dBmV
The maximum level difference between the highest and lowest is	8.2 dBm∨
The maximum six month variance is	7.7 dBm∨

							<b>T</b>	est P	oint #	1							
	(Cor	nca	st					35 S. B	ragg St								
	24 Hour Level Variation																
	Equipn	ment Used: 100' drop, Wavetek SDA-5000 Sign								el Mete	r S/N 4:	340571		Date: (	0 <u>8/</u> 19/0	6	
Run	1				2				3				_4				
<b>.</b>	Time: 0	1:49:04			Time: 0	7:34:05			Time: 1	4:11:36				0:00:25			
Temp	75	A	A	<b>C A 4 1</b>	74		A 11 4	0.1.4	80	A 1			85				
Chan	Viđ Lvl	Aud	Adjcnt Diff	6 Mth Diff	Vid Lvl	Aud Diff	Adjcnt Diff	6 Mth Diff	Vid Lvl	Aud Diff	Adjcnt Diff	6 Mth Diff	Vid Lvl	Aud	Adjont Diff	6 Mth Diff	24 HR Vid Diff
2	23.1	11.9		6.5	23.2	12.0		6.5	22.9	12.0		6.2	23.1	11.8		6.3	
3	23.6	15.0	0.5	6.3	23.2	14.9	0.4	6.4	22.9	14.4	-0.1	0.2 5.4	23.1	14.6	0.2	5.9	0.3
4	23.5	14.5	-0.1	5.0	23.3	14.2	-0.3	5.9	22.0	14.5	0.3	4.2	23.3	15.3	0.2	6.4	1.1
5	24.0	14.4	0.5	6.5	24.5	14.8	1.2	6.9	24.5	15.1	1.4	7.5	24.5	14.7	0.3	6.8	0.5
6	24.1	15.2	0.1	6.6	24.1	15.1	-0.4	6.6	23.9	15.4	-0.6	6.1	24.1	15.1	-0.4	6.4	0.2
95	22.0	13.6	-2.1	6.5	23.0	14.5	-1.1	7.6	22.7	14.5	-1.2	7.1	23.3	14.5	-0.8	7.7	1.3
96	24.8	14.9	2.8	6.8	24.8	14.9	1.8	7.0	24.6	14.9	1.9	6.4	24.8	14.6	1.5	6.8	0.2
99*1																	
14	24.3	16.5	-0.1	6.0	23.8	15.8	-0.7	5.4	24.7	15.2	0.5	6.4	24.8	16.9	0.1	6.5	1.0
15	24.4	15.0	0.1	6.6	24.5	15.0	0.7	6.6	24.2	15.0	-0.5	6.1	24.7	14.9	-0.1	6.7	0.5
16	23.8	16.7	-0.6	5.4	23.9	16.4	-0.6	5.3	23.6	16.3	-0.6	4.9	24.2	16.5	-0.5	5.6	0.6
17	24.3	14.2	0.5	5.4	24.2	13.9	0.3	5.3	24.0	14.2	0.4	4.7	24.4	14.1	0.2	5.2	0.4
18	24.5	15.2	0.2	6.4	24.6	15.2	0.4	6.3	24.3	15.3	0.3	5.8	24.9	15.4	0.5	6.3	0.6
19	24.2	14.9	-0.3	5.2	24.3	14.8	-0.3	5.3	23.8	14.8	-0.5	4.6	24.4	14.9	-0.5	5.4	0.6
20	24.8	15.3	0.6	5.8	24.6	15.0	0.3	5.6	24.6	15.4	0.8	5.1	24.8	15.3	0.4	5.4	0.2
21	24.4	14.2	-0.4	5.2	24.4	14.0	-0.2	5.2	23.9	14.1	-0.7	4.1	24.4	14.2	-0.4	4.8	0.5
22	25.2	15.1	0.8	5.6	25.2	14.9	0.8	5.7	24.8	15.1 15.0	0.9	5.0	25.2	15.1	0.8	5.3	0.4
7	26.0	15.0	0.8	6.3 6.0	26.2	15,1 14,4	1.0	6.1 6.0	25.6 25.3	15.0	0.8	5.0 5.5	25.2 25.4	14.3 14.6	0.0	5.3	1.0 0.2
8	25.5	14.5	0.9	<u>0.0</u> 5.1	25.5 25.4	14.4	-0.1	4.6	25.5	14.8	0.3	5.5 4.5	25.4	14.0	0.2	4.5	1.0
10	26.4 26.4	15.8 15.2	0.9	5.1 6.0	25.4	14.0	1.1	4.0	25.5	15.3	0.2	4.5	26.0	15.0	0.0	<u>4.5</u> 5.1	0.6
11	26.4	15.2	0.0	5.3	26.6	15.3	0.1	5.6	26.0	15.3	0.4	4.6	26.0	15.2	-0.1	4.8	0.6
12	26.3	15.0	-0.2	5.1	26.0	14.8	-0.3	5.0	25.7	15.0	-0.3	4.3	20.0	14.8	-0.3	4.5	0.6
13	25.9	15.1	-0.4	4.6	26.1	15.2	-0.2	4.7	25.6	15.2	-0.1	4.0	25.7	15.2	0.0	4.1	0.5
23	26.3	15.1	0.4	4.6	26.4	15.1	0.3	4.6	25.7	15.1	0.1	3.6	26.0	15.2	0.3	4.0	0.7
24*1	20.0	10.1									1						
25	26.3	15.4	0.3	5.8	26.5	15.5	0.3	6.4	25.6	15.3	0.1	4.9	25.8	15.3	0.0	5.1	0.9
26	26.0	15.4	-0.3	4.5	26.2	15.4	-0.3	4.9	25.5	15.4	-0.1	3.8	25.8	15.6	0.0	4.1	0.7
27	26.0	14.1	0.0	4.3	26.2	14.2	0.0	4.4	25.5	14.2	0.0	3.5	25.7	14.3	-0.1	3.7	0.7
28	26.6	15.9	0.6	4.5	26.7	15.8	0.5	4.7	26.3	16.1	0.8	4.0	26.1	15.8	0.4	4.0	0.6
29	26.5	15.6	-0.1	5.1	26.6	15.5	-0.1	5.0	25.9	15.5	-0.4	3.9	26.1	15.5	0.0	4.2	0.7
30	26.6	15.5	0.1	4.9	26.5	15.2	-0.1	4.7	25.8	15.2	-0,1	3.8	25.7	15.1	-0.4	3.8	0.9
31	26.8	14.8	0.2	4.9	26.9	14.8	0.4	4.9	26.4	15.0	0.6	4.1	26.4	14.9	0.7	4.4	0.5
32	26.5	15.0	-0.3	4.2	26.5	14.8	-0,4	4.1	26.0	15.1	-0.4	3.3	26.2	15.2	-0.2	3.8	0.5

	Test Point #1																
	(Cor	nca	st					ragg St									
	Caulon	nent l le	and a	400/ 4					vel Vari		- 0414			Data	0/40/0	•	
Run	Equipment Used: 100' drop, Wavetek SDA-5000 Sig																
- Kuri	Time: 0	1.40.04			 Time: 01	7-34-05			3 Time: 1	A-11-26			4 Time: 2	0:00:25		-	
Temp	75	1.40.04			74				80	4.11.30			85	0.00.25	-		
Chan	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjont	6 Mth	24 HR
33	27.1	15.7	0.6	5.6	27.0	15.5	0.5	5.1	26.4	15,7	0.4	4.5	26.2	15.4	0.0	4.2	0.9
34	26.4	15.0	-0.7	4.3	26.7	15.3	-0.3	4.5	26.2	15.3	-0.2	3.6	25.9	15.0	-0.3	3.5	0.8
35	27.1	15.3	0.7	4.7	27.0	15.0	0.3	4.6	26.4	15.0	0.2	3.5	26.5	15.1	0.6	3.9	0.7
36	26.5	15.1	-0.6	3.5	26.5	15.0	-0.5	3.6	26.1	15.3	-0.3	2.8	26.2	15.3	-0.3	3.3	0.4
37	27.0	15.2	0.5	3.9	27.1	15.2	0.6	4.0	26.5	15.2	0.4	2.9	26.5	15.2	0.3	2.9	0.6
38	27.5	15.5	0.5	4.6	27.4	15.2	_0.3	4.5	26.7	15.2	0.2	3.1	26.8	15.4	0.3	3.3	0.8
39	27.3	14.5	-0.2	4.1	27.5	14.7	0.1	4.3	27.0	14.7	0.3	3.4	26.8	14.6	0.0	3.4	0.7
40	27.6	15.4	0.3	3.8	27.5	15.1	0.0	3.7	27.3	15.5	0.3	3.3	27.0	15.2	0.2	3.0	0.6
41	27.9	15.7	0.3	3.8	27.9	15.4	0.4	3.8	27.4	15,6	0.1	3.3	27.2	15.6	0.2	3.1	0.7
42	27.5	15.8	-0.4	5.5	27.8	16.0	-0.1	5.9	26.9	15.6	-0.5	4.7	27.0	15.9	-0.2	4.8	0.9
43	27.8	15.2	0.3	5.3	27.8	15.1	0.0	5.4	27.2	15.1	0.3	4.3	27.1	14.9	0.1	4.4	0.7
44	28.2	15.4	0.4	3.6	28.2	15.2	0.4	3.6	27.8	15.4	0.6	2.9	27.5	15.3	0.4	2.7	0.7
45 46	28.1 28.7	15.6 15.4	<u>-0.1</u> 0.6	3.8 3.8	28.4 28.7	<u>15.8</u> 15.3	0.2	4.0	27.8 28.2	15.7 15.4	0.0	<u>3.1</u> 3.2	27.7 28.3	15.7 15.6	0.2	2.9 3.1	0.7 0.5
40	20.7	15.4	-1.5	3.8	20.7	15.5	-1.5	4.0 3.4	26.2	15.4	-1.4	2.8	26.5	15.8	-1.7	2.3	0.5
48	28.3	15.1	1.1	3.1	28.6	15.3	1.4	3.5	27.8	15.1	1.0	2.4	27.8	15.2	1.2	2.4	0.8
49	28.3	15.5	0.0	2.8	28.4	15.5	-0.2	2.9	28.0	15.6	0.2	2.4	27.6	15.2	-0.2	1.9	0.8
50	28.6	15.3	0.3	3.0	28.3	14.8	-0.1	2.7	27.9	15.0	-0.1	2.0	27.9	15.1	0.3	2.1	0.7
51	28.5	15.3	-0.1	3.0	28.7	15.4	0.4	3.2	28.1	15.4	0.2	2.4	27.9	15.2	0.0	2.0	0.8
52	29.3	15.5	0.8	4.0	29.1	15.0	0.4	3.5	28.8	15.4	0.7	3.2	28.6	15.3	0.7	3.1	0.7
53	29.0	15.0	-0.3	3.7	29.3	15.0	0.2	3.9	28.9	15.4	0.1	3.3	28.6	15.2	0.0	2.9	0.7
54	29.2	14.7	0.2	3.7	29.0	14.4	-0.3	3.5	28.6	14.6	-0.3	2.7	28.3	14.4	-0.3	2.4	0.9
55	28.8	15.1	-0.4	3.0	28.8	14.9	-0.2	3.0	28.4	15.1	-0.2	2.4	27.9	14.7	-0.4	2.0	0.9
56	29.4	15.0	0.6	3.7	29.5	15.0	0.7	3.5	28.8	14.8	0.4	2.7	28.7	14.7	0.8	2.6	0.8
57	29.0	14.8	-0.4	3.2	<b>29</b> .0	14.6	-0.5	3.2	28.2	14.4	-0.6	2.2	28.3	14.4	-0.4	2.2	0.8
58	28.9	15.4	-0.1	4.7	28.7	15.1	-0.3	4.3	28.3	15.2	0.1	3.7	28.0	15.1	-0.3	_3.4	0.9
59	29.0	15.2	0.1	3.2	28.9	15.0	0.2	3.3	28.1	14.7	-0.2	2.1	28.3	14.9	0.3	2.3	0.9
60	28.9	15.4	-0.1	2.6	29.1	15.5	0,2	2.9	28.6	15.4	0.5	2.1	28.6	15.4	0.3	1.9	0.5
61	28.9	16.1	0.0	2.4	28.8	15.8	-0.3	2.2	28.2	15.8	-0.4	1.5	28.4	16.0	-0.2	1.7	0.7
<u>62</u>	28.8	15.2	-0.1	2.6	29.0	15.4	0.2	2.7	28.5	15.4	0.3	1.9	28.5	15.2	0.1	1.7	3.0
<u>63</u> 64	29.4	15.5	0.6	2,6	29.2	15.1	0.2	2.4	29.1	15.5	0.6	1.7	29.1	15.5	0.6	1.9	0.3
64	29.1	15.6	-0.3	1.7	29.3	15.6 15.4	0.1	1.9 2.3	28.7 28.4	15.5 14.9	-0.4	1.1	28.3 28.6	15.0 15.0	-0.8 0.3	1.3	1.0
66	28.8 29.2	15.0 15.4	-0.3	1.7	29.3 29.5	15.4 15.6	0.0	2.3	28.4	14.9	0.4	1.1	28.6	15.0	0.3	1.3	0.9
67	30.2	15.4	1.0	<u>2.2</u> 3.1	29.5 30.3	15.6	0.2	3.3	20.0	15.5	1.1	2.6	30.0	15.5	1.0	2.7	0.7
68	29.8	15.0	-0.4	2.8	30.0	15.2	-0.3	3.0	29.5	15.3	-0.4	2.0	29.6	15.2	-0.4	2.7	0.4
69	29.8	15.5	0.0	2.6	29.8	15.0	-0.3	2.7	29.4	15.5	-0.1	1.9	29.6	15.3	0.0	2.3	0.4
70	30.1	15.1	0.3	3.1	29.9	14.8	0.1	3.0	29.5	15.1	0.1	2.4	29.8	15.0	0.2	2.6	0.6
71	28.9	14.6	-1.2	1.6	29.2	14.8	-0.7	1.9	28.5	14.6	-1.0	1.0	28.8	14.8	-1.0	1.2	0.7
72	27.5	15.8	-1.4	2.0	27.5	15.6	-1.7	2.9	27.0	15.6	-1.5	2.3	27.2	15.5	-1.6	2.3	0.5

#### Test Point #1

#### (comcast

.

85 S. Bragg St. 24 Hour Level Variation

Equipment Used: 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 4340571 Date: 08/19/06

Run	1				2				3				4				
	Time: 01:49:04						Time: 07:34:05				Time: 14:11:36			0:00:25			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
73	29.1	15.1	1.6	1.8	29.2	15.2	1.7	2.1	28.6	14.9	1.6	1.1	28.8	14.9	1.6	1.2	0.6
74	28.8	15.0	-0.3	1.1	28.8	15.0	-0.4	1.0	28.3	14.9	-0.3	0.4	28.5	14.8	-0.3	0.5	0.5
75*1																	
76	29.2	15.2	0.6	2.2	29.2	15.2	0.5	2.1	28.6	15.1	0.1	1.4	29.1	15.3	0.4	1.7	0.6
77	28.6	15.6	-0,6	2.0	28.7	15.7	-0.5	2.2	28.5	15.9	-0.1	1.7	28.7	15.7	-0.4	2.0	0.2
78*1			1														
Min Value	22.0	11.9	-2.1	1.1	23.0	12.0	-1.7	1.0	22.7	12.0	-1.5	0.4	23.1	11.8	-1.7	0.4	0.2
Max Value	30.2	16.7	2.8	6.8	30.3	16.4	1.8	7.6	29.9	16.3	1.9	7.5	30.0	16.9	1.6	7.7	3.0

#### Notes:

\*1 - Channel has been removed from the analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. **Concast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line.** Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

#### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

#### Test Point #2

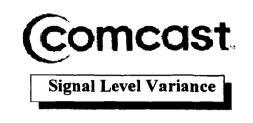
#### Comcast

Tower Ct. & Whitting St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

1. 1.1.1

.

	Date: 08/3	0/06	Time: 5:15	pm	Temp: 78					
		FREQ. RSP	HUM%	CSO	СТВ	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	1.6	0.8	68.4	68.5	50.1	4.5000			
	95	1.7	0.7	69.8	67.5	52.5	4.5000			
	21	1.2	0.7	70.7	67.7	51.7	4.5001			
	8	1.4	0.7	71.8	64.6	51.7	4.5001			
	28	1.3	0.6	69.1	70.0	50.9	4.5000			
	32	1.3	0.7	66.6	62.4	50.2	4.5001			
	47	1.1	0.8	67.1	68.4	49.8	4.5000			
	58	1.1	0.7	68.7	<u>70</u> .9	51.0	4.5000			
	72	0.9	1.0	66.9	65.9	49.0	4.5000			
Minimum	Minimum values:		0.6	66.6	62.4	49	4.5000			
Maximum	Maximum values:		1.0	71.8	70.9	52.5	4.5001			

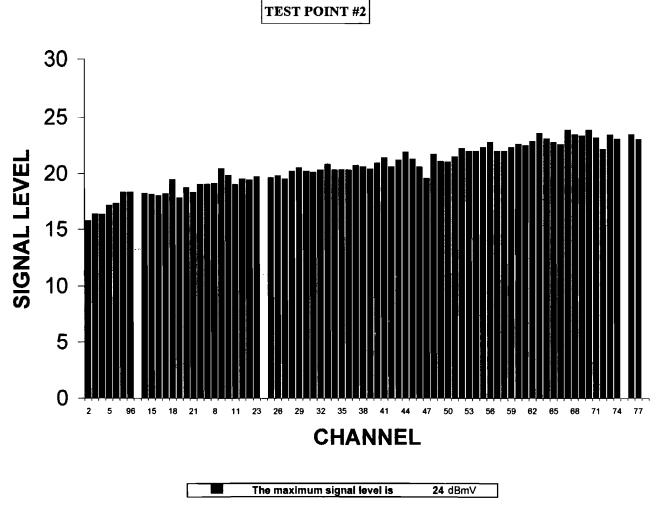


The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.

r

- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum adjacent channel level difference is	2.1 dBmV
The maximum level difference between the highest and lowest is	8.3 dBmV
The maximum six month variance is	6.3 dBmV

							T	est P	oint #	2							
	Cor	nca	st						3. Whitt	0							
	Equipn	nont i le	-bo	100' d	rop, Wa	wołak (			vel Vari			240571		Date	08/19/0	c	
Run	1		cu.	100 0	2		JDA-30	ou sigi	3		- 3/14 4	34037	4	Date.	00/19/0	0	
	Time: 0	1:41:00	_		Time: 0	7.27.16			Time: 1	4.02.41				9:53:06			
Temp	75				74				80				85	0.00.00	-	,	
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
	LvI	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Vid Diff
2	15.8	12.0		2.9	15.8	12.0		2.9	15.4	11.9		2.5	15.7	11.9	1	2.7	0.4
3	16.4	14.8	0.6	3.6	16.5	14.8	0.7	3.6	16.2	14.7	0.8	3.2	16,4	14.8	0.7	3.5	0.3
4	16.4	14.5	0.0	4.3	16.4	14.4	-0.1	4.5	17.3	15.7	1.1	5.1	17.4	15.5	1.0	5.4	1.0
5	17.2	14.2	0.8	4.8	17.8	14.7	1.4	5.3	17.5	14.7	0.2	5.1	17.0	14.1	-0.4	4.6	0.8
6	17.4	15.2	0.2	4.7	17.3	15.1	-0.5	4.4	17.1	15.2	-0.4	4.3	17.5	15.4	0.5	4.4	0.4
95	18.4	14.7	1.0	4.6	18.4	14.5	1.1	4.7	18.1	14.7	1.0	4.1	18.4	14.7	0.9	4.4	0.3
96	18.4	14.9	0.0	4.3	18.5	14.9	0.1	4.3	18.2	14.9	0.1	3.9	18.4	14.8	0.0	4.3	0.3
<u>99*1</u>																	
14	18.3	<u>16.4</u>	0.1	4.0	17.3	15.2	-0.9	3.1	18.4	16.7	0.6	3.9	18.9	16.0	0.8	4.6	1.6
15 16	18,2	14.9	<u>-0.1</u> -0.1	4.9 4.0	1 <u>8.2</u> 18.1	14.8 15.1	0.9 -0.1	4.8 4.9	17.8	14.7	-0.6 0.2	4.2	18.1	14.6	-0.8	4.5	0.4
17	18.1 18.3	15.0 13.9	0.1	4.0	18.3	13.8	-0.1	4.9	18.0 18.1	1 <u>5.0</u> 14.0	0.2	3.9 3.7	18.0 18.3	15.3 13.8	-0.1 0.3	4.7	0.1
18	19.5	16.2	1.2	5.9	18.9	15.5	0.2	5.3	18.3	15.3	0.1	4.3	18.7	15.4	0.3	4.8	1.2
19	17.9	14.7	-1.6	3.8	18,1	14.9	-0.8	6.3	17.7	14.7	-0.6	3.8	18.1	15.4	-0.6	4.0	0.4
20	18.8	15.2	0.9	4.4	19.0	15.2	0.9	4.4	18.7	15.4	1.0	4.3	19.0	15.3	0.9	4.4	0.4
21	18.4	14.1	-0.4	3.7	18.4	14.0	-0.6	3.6	18.0	13.9	-0.7	3.3	18.3	13.9	-0.7	3.4	0.4
22	19.1	15.2	0.7	3.9	19.2	15.2	0.8	3.9	18.9	15.2	0.9	3.7	19.0	15.0	0.7	3.7	0.3
7	19.1	14.3	0.0	4.4	20.1	15.1	0.9	5.3	19.4	14.9	0.5	4.6	19.6	14.8	0.6	4.7	1.0
8	19.2	14.5	0.1	4.6	19.4	14.6	-0.7	4.7	19.1	14.7	-0.3	4.3	19.3	14.7	-0.3	4.5	0.3
9	20.5	15.9	1.3	5.1	20.5	15.8	1.1	5.1	19.5	15.4	0.4	3.9	20.1	15.9	0.8	4.7	1.0
10	19.9	16.0	-0.6	4.0	19.7	15.6	-0.8	3.9	19.3	16.0	-0.2	3.6	19.6	16.1	-0.5	3.7	0.6
11	19.1	14.9	-0.8	2.7	19.4	15.2	-0.3	2.9	18.9	15.0	-0.4	2.5	19.1	15.0	-0.5	2.6	0.5
12	19.6	15.0	0.5	2.7	19.5	14.8	0.1	3.0	19.2	14.9	0.3	2.3	19.2	14.7	0.1	2.4	0.4
13	19.5	15.2	-0.1	2.7	19.5	15.1	0.0	2.8	19.1	15.1	-0.1	2.4	19.1	15.0	-0.1	4,9	0.4
23	19.8	15.3	0.3	3.9	19.9	15.3	0.4	4.1	19.5	15.4	0.4	3.6	19.5	15.3	0.4	3.8	0.4
24*1	40.7	45.0				45.4				45.0			40.4				
25	19.7	15.3	-0.2	5.6	19.9	15.4	0.0	5.0	19.4	15.3	-0.1	4.6	19.4	15.2	-0.1	4.3	0.5
26	19.9	15.6	0.2	3.9	19.9	15.5	0.0	4.0	19.3	15.5	-0.1	3.3	19.6	15.7	0.2	3.6	0.6
<u>27</u> 28	19.6 20.3	14.1	0.7	3.5 3.3	19.7 20.3	14.0 15.5	-0.2 0.6	3.9	19.2	14.1 15.7	-0.1 0.7	3,1 2.8	19.4 20.0	14.1 15.4	-0.2 0.6	3.5	0.5
28	20.3	15.6 15.8	0.7	3.3 4.4	20.3	15.5	0.6	3.3 4.0	19.9 20.0	<u>15.7</u> 15.6	0.7	2.8	20.0	15.4	0.6	2.9	0.4
30	20.8	15.6	-0.3	4.4 3.7	20.5	15.4	0.0	4.0	19.9	15.6	-0.1	3.4	20.2	15.6	-0.1	3.6	0.6
31	20.3	14.6	-0.3	<b>4</b> .1	20.5	14.7	-0.2	4.0	20.0	14.7	0.1	3.4	19.9	14.5	-0.1	3.8	0.8
32	20.2	14.9	0.2	3.4	20.5	14.9	0.2	3.5	20.0	15.0	0.0	3.0	20.1	14.8	0.2	3.1	0.4

Test Point #2
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(Comcast

#### Tower Ct. & S. Whitting St. 24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057(

	Equipr	nent Us	ed:	<u>100' d</u>	rop, Wa	vetek			nal Leve		r S/N 4	340571		Date: (	08/19/0	6	
Run	1				2				3				4				
	Time: 0	1:41:00			Time: 0	7:27:16			Time: 1	4:02:41				9:53:06			
Temp	75				74				80		_		85	1 ml			
<u>Chan</u>	Vid	,	Adjoint	6 Mth	Vid		Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjcnt	6 Mth	24 HR
33	20.9	15.7	0.5	4.6	20.9	15.7	0.4	4.6	20.3	15.5	0.3	3.8	20.7	15.7	0.6	4.2	0.6
34	20.4	15.6	-0.5	4.6	20.5	15.6	-0,4	4.6	19.7	15.3	-0.6	3.9	20.0	15.3	-0.7	4.1	0.8
35	20.4	15.0	0.0	4.1	20.4	14.8	-0.1	4.3	19.9	15.0	0.2	3.7	20.1	14.9	0.1	3.8	0.5
36	20.4	15.1	0.0	3.7	20.5	15.1	0.1	3.9	19.8	14.8	-0.1	3.0	20.4	15.2	0.3	3.5	0.7
37	20.8	15.3	0.4	3.9	21.0	15.5	0.5	4.1	20.7	15.6	0.9	3.5	20.9	15.6	0.5	3.8	0.3
38	20.7	15.5	-0.1	4.2	20.8	15.5	-0.2	4.3	20.4	15.6	-0.3	3.0	20.8	15.8	-0.1	3.3	0.4
39	20.5	14.3	-0.2	3.7	20.7	14.4	-0,1	4.1	20.2	14.3	-0.2	3.4	20.4	14.4	-0.4	3.7	0.5
40	21.0	15.2	0.5	3.8	21.1	15.2	0.4	4.1	20.7	15.3	0.5	3.3	20.8	15.1	0.4	3.5	0.4
41	21.5	16.0	0.5	3.8	21.5	1 <u>5.8</u>	0.4	3.8	21.0	15.9	0.3	3.5	21.4	16.0	0.6	3.7	0.5
42	20.7	15.1	-0.8	5.6	20.7	15.1	-0.8	5.6	20.1	15.0	-0.9	5.1	20.3	14.9	-1.1	5.2	0.6
43	21.3	15.3	0.6	5.8	21.4	15.4	0,7	6.1	20.8	15.3	0.7	5.3	21.1	15,4	0.8	5.7	0.6
44	22.0	15.7	0.7	5.1	22.0	15.5	0.6	5.2	21.2	15.4	0.4	4.3	<u>21.5</u>	15.5	0.4	4.6	0.8
45	21.4	16.3	-0.6	4.7	21.7	16.0	-0.3	5.2	21.3	15.5	0.1	4.7	21.3	15.6	-0.2	4.8	0.4
46	20.7	15.0	-0.7	3.5	20.6	14.8	-1.1	3.4	19.3	14.1	-2.0	1.9	19.7	14.4	-1.6	2.3	1.4
47	19.7	15.1	-1.0	3.9	19.6	14.8	-1.0	4.0	19.1	15.0	-0.2	3.1	19.5	15.1	-0.2	4.4	0.6
48	21.8	15.3	2.1	3.8	21.6	15.1	2.0	3.8	21.0	14.8	1.9	3.4	21.6	15.3	2.1	4.1	0.8
49	21.2 21.1	15.6	-0.6	3.1 3.3	21.1	15.4	-0.5	3.0	20.8	15.5	-0.2	2.7	21.0	15.6	-0.6	2.9	0.4
51	21.1	15.0 15.0	-0.1 0.5	3.5	21.3 21.7	15.0 15.0	0.2	3.8	20.9 21.4	15,1 15,1	0.1	3.2	21.2 21.4	15,2 14.8	0.2	<u>3.3</u> 3.1	0.4
52	21.0	15.0	0.7	3.3	21.7	15.0	0.4	3.5	21.4	15.1	0.5	3.1	21.4	14.0	0.2	3.4	0.3
53	22.3	15.1	-0.2	3.4	22.3	15.1	-0.2	3.7	21.7	15.0	-0.4	3.1	22.0	15.0	-0.3	3.4	0.4
54	22.1	14.7	0.0	3.9	22.4	14.9	0.1	4.1	21.7	14.6	0.0	3.5	21.9	14.6	-0.1	3.6	0.0
55	22.4	15.0	0.3	3.2	22.3	14.8	-0.1	3.2	22.0	15.0	0.3	2.9	22.2	14.9	0.3	3.1	0.4
56	22.9	15.6	0.5	3.6	22.9	15.5	0.6	3.7	22.7	15.6	0.7	3.4	23.0	15.7	0.8	3.7	0.3
57	22.1	14.9	-0.8	3.2	22.4	15.1	-0.5	3.7	21.8	15.0	-0.9	2.8	22.5	15.4	-0.5	3.6	0.7
58	22,1	15.1	0.0	5.0	22.0	14.9	-0.4	5.0	21.7	15.1	-0.1	4.8	22.1	15.2	-0.4	5.1	0.4
59	22.4	14.6	0.3	3.4	22.6	14.7	0.6	3.6	21.9	14.5	0.2	2.8	22.2	14.4	0.1	3.3	0.7
60	22.7	15.3	0.3	4.3	22.9	15.4	0.3	4.6	22.5	15.4	0.6	4.0	22.6	15.3	0.4	3.9	0.4
61	22.6	16.1	-0.1	4.0	22.7	16.0	-0.2	4.2	22.0	15.8	-0.5	3.6	22.7	16.2	0.1	4.2	0.7
62	23.0	15.4	0.4	4.5	23.0	15.4	0.3	4.6	22.4	15.2	0.4	4.1	22.4	15.0	-0.3	4.4	0.6
63	23.7	15.7	0.7	4.4	23.4	15.3	0.4	4.1	23.3	15.7	0.9	4.3	23.6	15.8	1.2	4.5	0.4
64	23.2	15.6	-0.5	4.0	23.1	15.4	-0.3	4.1	22.9	15.6	-0.4	4.0	23.1	15.8	-0.5	4.1	0.3
65	22.9	15.1	-0.3	4.5	23.1	15.3	0.0	4.8	22.4	15.0	-0.5	4.2	22.8	15.1	-0.3	4.7	0.7
66	22.7	15.2	-0.2	4.2	23.0	15.4	-0.1	4.6	22.5	15.3	0.1	4.4	22.8	15.4	0.0	4.2	0.5
67	24.0	15.6	1.3	4.9	24.0	15.4	1.0	4.6	23.7	15.6	1.2	4.5	24.0	15.7	1.2	4.8	0.3
68	23.6	15.5	-0.4	4.0	23.8	15.6	-0.2	4.1	23.4	15.6	-0.3	3.8	23.5	15.5	-0.5	3.9	0.4
69	<u>23.5</u>	15.2	-0.1	4.3	23.6	15.1	-0.2	4.3	23.2	15.3	-0.2	3.9	23.3	15.1	-0.2	4.1	0.4
70	24.0	15.2	0.5	4.3	23.9	15.1	0.3	4.1	23.5	15.3	0.3	3.9	23.7	15.1	0.4	3.9	0.5
71	23.3	14.5	-0.7	4.4	23.6	14.7	-0.3	4.6	23.0	14.7	-0.5	4.0	23.2	14.5	-0.5	4.1	0.6
72	22.3	16.1	-1.0	3.1	22.2	15.9	-1.4	3.2	21.8	15.9	-1.2	2.7	22.1	15.9	-1.1	2.6	0.5

,

Comcast

Tower Ct. & S. Whitting St. 24 Hour Level Variation

	Equipn	nent Us	sed:	<u>100' d</u>	rop, Wa	avetek 3	SDA-50	)00 Sigi	nal Leve	el Mete	r S/N 4	<u>34057(</u>		Date: (	08/19/0	6	
Run	1				2				3				4				
	Time: 0	1:41:00			Time: 0	7:27:16			Time: 1	4:02:41			Time: 1	9:53:06			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjont	6 Mth	24 HR
73	23.6	14.8	1.3	4.6	23.8	14.9	1.6	4.6	23.2	14.8	1.4	4.0	23.3	14.6	1.2	4.0	0.6
74	23.2	14.9	-0.4	3.3	23.5	15.1	-0.3	3.6	23.0	15.1	-0.2	2.9	23.1	14.8	-0.2	3.1	0.5
75*1																	
76	23.6	15.2	0.4	5.0	23.7	15.2	-0.1	5.5	23.1	15.1	-0.1	4.5	23.5	15.2	0.2	5.0	0.6
77	23.2	15.8	-0.4	6.0	23.3	15.8	-0.4	6.1	22.9	15.8	-0.2	5.9	22.8	15.5	-0.7	<u>5.7</u>	0.5
78*1															1		
Min Value	15.8	12.0	-1.6	2.7	15.8	12.0	-1.4	2.8	15.4	11.9	-2.0	1.9	15.7	11.9	-1.6	2.3	0.1
Max Value	24.0	16,4	2.1	6.0	24.0	16.0	2.0	6.3	23.7	16.7	1.9	5.9	24.0	16.2	2.1	5.7	1.6

Notes:

\*1 - Channel has been removed from analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. **Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line.** Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

# Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

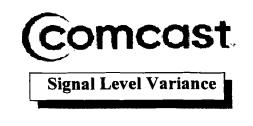
The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

### Comeast

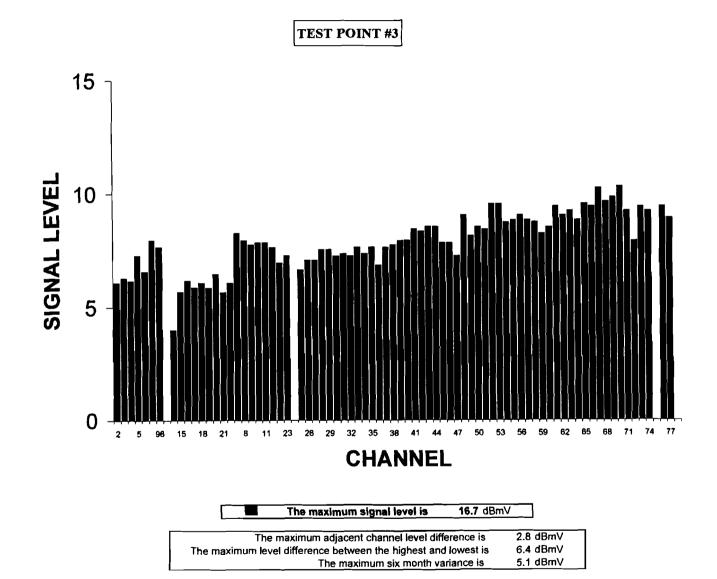
1 N. Donelson St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P \$591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

Date:08/30/06 Time: 4:00 pm Temp: 75 FREQ. RSP CSO СТВ HUM% C/N 4.5 DIFF CH. 2dB Max 3% Max 51dB Min 51dB Min 43dB Min 5KHz Max 2 1.9 1.0 66.8 64.0 48.8 4.5000 95 1.9 75.7 66.1 50.7 4.5000 0.8 21 1.8 1.0 70.0 78.1 50.3 4.5001 0.9 72.9 8 1.1 68.4 50.3 4.5001 28 1.0 1.0 71.6 66.8 49.9 4.5000 32 0.9 0.9 71.6 49.4 4.5001 67.7 1.2 67.2 49.5 47 0.8 68.3 4.5000 58 1.3 0.8 73.9 68.6 50.7 4.5000 72 1.2 1.2 67.9 47.8 4.5000 66.3 47.8 0.8 66.3 Minimum values: 0.9 64.0 4.5000 78.1 50.7 Maximum values: 1.9 1.2 75.7 4.5001



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							T	est P	oint #	3							
	(Cor	nca	st				1	N. Dor	elson S	St.							
									vel Vari								
····	Equipri	nent Us	ed:	<u>100' d</u>		vetek 3	SDA-50	00 Sigi	nal Lev	el Mete	r S/N 4	24057(		Date:	08/19/0	6	
Run	1				2				3				4				
	Time: 0	<u>1:21:03</u>			Time: 0	7:11:37			Time: 0	7:11:37				7:11:37			
Temp	75				74				80				85	<del>r . :</del>			
Chan	Vid	Aud	Adjent		Vid	Aud	Adjont		Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjent		24 HR
		Diff	Diff	Diff	Lvl	Diff	Diff.	Diff	Lvi	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Vid Diff
2	6.1 6.3	12.5	0.2	-1.9	6.0 6.3	12.5	0.0	-1.9	<u>6.0</u> 8.6	12.5	0.0	-2.1	6.0	12.5		-2.1	0.1
4	6.2	14.8 14.5	-0.1	-2.3	6.4	14.8 14.8	0.3	-2.1	8.0	14,8 14.8	2.6	0.0	6.3 6.4	14.8	0.3	-2.3	2.3 2.0
5	7.3	14.5	1.1	-2.8 -1.5	6.5	14.8	0.1	-2.5 -1.7	0.2 6.5	14.0	-0.4	-1.2	6.5			-3.5	
6	6.6	14.5	-0.7	-1.5	6.5	14.2	0.0	-2.0	6.5	14.2	0.0	-1.4	6.5	14.2 15.0	0.1	-2.1	0.8
95	8.0	15.0	1.4	<u>-2.0</u> 1.7	8.1	15.0	1.6	1.8	8.1	15.0	1.6	0.6	8.1	15.0	1.6	1.7	0.1
96	7.7	15.0	-0.3	-0.9	7.9	15.0	-0.2	-0.7	7.9	15.0	-0.2	2.0	7.9	15.0	-0.2	-0.7	0.1
99*1	1.1	15.0		-0.9	1.5	15.0	-0.2	-0.7	1.5	15.0	-0.2	2.0	1.5	10.0	-0.2	-0.7	0.2
14	4.0	14.6	-1.7	-5.1	4.2	14.8	-1.6	-4.8	4.2	14.8	-1.6	-2.3	7.2	14.8	1.4	0.0	3.2
15	5.7	14.2	1.7	-2.6	5.8	14.4	1.6	-2.5	5.8	14.4	1.6	-2.6	5.8	14.4	-1.4	-2.5	0.1
16	6.2	16.2	0.5	-3.3	6.0	16.1	0.2	-3.3	6.0	16.1	0.2	-3.1	6.0	16.1	0.2	-2.9	0.1
17	5.9	13.7	-0.3	-3.2	5.8	13.7	-0.2	-3.3	5.8	13.7	-0.2	-3.1	5.8	13.7	-0.2	-3.0	0.1
18	6.1	15.0	0.2	-3.8	6.1	15.2	0.3	-2.7	8.6	15.2	2.8	0.0	6.1	15.2	0.3	-2.1	2.5
19	5.9	15.0	-0.2	-1.8	5.9	15.0	-0.2	-1.9	5.9	15.0	-2.7	-1.8	5.9	15.0	-0.2	-3.1	0.0
20	6.5	15.7	0.6	-1.3	6.4	15.6	0.5	-1.5	6.4	15.6	0.5	-1.4	6.4	15.6	0.5	-2.1	0.1
21	5.7	14.3	-0.8	-2.5	5.8	14.5	-0.6	-2.2	7.0	14.5	0.6	0.0	5.8	14.5	-0.6	-2.6	1.3
22	6.1	11.8	0.4	-2.2	6.0	12.0	0.2	-2.3	6.0	12.0	-1.0	-2.4	6.0	12.0	0.2	-2.6	0.1
7	8.3	16.7	2.2	-0.7	8.8	15.8	2.8	0.5	8.8	15.8	2.8	-0.3	8.8	15.8	2.8	-0.3	0.5
8	8.0	15.5	-0.3	-0.4	8.1	15.7	-0.7	-0.5	8.1	15.7	-0.7	-0.7	8.1	15.7	-0.7	-0.8	0.1
9	7.8	15.6	-0.2	-2.1	8.1	15.9	0.0	-1.3	8.1	15.9	0.0	-2.5	9.0	15.9	0.9	0.0	1.2
10	7.9	15.4	0.1	-0.9	8.2	15.7	0.1	-0.7	8.2	15.7	0.1	-1.6	8.2	15.7	-0.8	-1.7	0.3
11	7.9	15.5	0.0	-1.9	8.2	15.6	0.0	-1.5	8.2	15.6	0.0	-2.2	8.2	15.6	0.0	-1.9	0.3
12	7.7	15.3	-0.2	-4.7	7.8	15.4	-0.4	-4.3	7.8	15.4	-0.4	-2.7	7.8	15.4	-0.4	-2.2	0,1
13	7.0	15.1	-0.7	-3.3	7.5	15.6	-0.3	-3.0	7.5	15.6	-0.3	-3.1	7.5	15.6	-0.3	-2.4	0.5
23	7.3	15.1	0.3	-2.9	7.2	15.0	-0.3	-3.2	7.2	15.0	-0.3	-3.3	7.2	15.0	-0.3	-2.9	0.1
24*1																	
25	6 <u>.</u> 7	14.8	-0.4	-1.9	6.5	14.7	-0.4	-2.0	6.5	14.7	-0.4	-2.5	6.5	14.7	-0.4	-2.3	0.2
26	7.1	15.5	0.4	-2.6	6.9	15.2	0.4	-2.8	6.9	15.2	0.4	-3.2	6.9	15.2	0.4	-3.1	0.2
27	7.1	14.3	0.0	-2.8	6.9	14.0	0.0	-3.4	6.9	14.0	0.0	-3.3	6.9	14.0	0.0	-3.5	0.2
28	7.6	15.6	0.5	-2.7	7.7	15.8	0.8	-2.7	7.7	15.8	0.8	-3.1	7.7	15.8	0.8	-3.1	0.1
29	7.6	15.5	0.0	-2.6	7.6	15.4	-0.1	-2.4	7.6	15.4	-0.1	-2.8	7.6	15.4	-0.1	-2.7	0.0
30	7.3	14.9	-0.3	-2.7	7.1	14.8	-0.5	-2.9	7.1	14.8	-0.5	-3.1	7.1	14.8	-0.5	-3.2	0.2
31	7.4	14.7	0.1	-2.6	7.3	14.6	0.2	-2.6	7.3	14.6	0.2	-2.9	7.3	14.6	0.2	-2.8	0.1
32	7.3	15.1	-0.1	-3.1	7.6	15.3	0.3	-2.7	7.6	15.3	0.3	-3.0	7.6	15.3	0.3	-3.0	0.3

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						[	Т	'est P	oint #	3							
	(Cor	nca	st				1	N. Dor	elson S	St.							
	œ-								vel Vari								
	Equipn	nent Us	sed:	100' d	rop, Wa	vetek	SDA-50	00 Sig	nal Leve	el Mete	r S/N 4	240571		Date: 0	)8/19/0	6	80.51
Run	1				2				_ 3				4				-
	Time: 0	1:21:03			Time: 0	7:11:37			Time: 0	7:11:37			Time: 0	7:11:37			
Temp	75				74				80				85				
<u>Chan</u>	Vid	Aud		6 Mth	Vid		Adjont		Vid	Aud	Adjont		Vid	Aud		6 Mth	
<u>33</u> 34	7,7 7,4	15.3	0.4	-2.4	7.8	15.4	0.2	-2.2	8.0	15.4	0.4	0.0	7.8	15.4	0.2	-2.4	0.3
34	7.4	15.2 15.6	-0.3	-3.2 -2.8	7.3 7.3	15.2 15.1	-0.5 0.0	-3.0 -3.1	7.3 7.3	<u>15.2</u> 15.1	-0.7 0.0	-3.3	7.3	15.2	-0.5	-3.5	0.1
36	6.9	15.0	-0.8	-2.0	7.0	15.1	-0.3	-3.4	7.0	15.1	-0.3	-3.4 -3.4	7.3	<u>15.1</u> 15.1	0.0	-3.4 -3.5	0.4 0.1
37	7.7	15.0	0.8	-2.9	7.7	15.1	-0.3	-2.9	7.0	15.3	-0.3	-3.4	7.0	15.1	-0.3	-3.5	0.1
38	7.8	15.0	0.0	-2.5	7.7	14.8	0.0	-2.9	7.7	14.8	0.7	-3.2	7.7	14.8	0.0	-3.1	0.0
39	8.0	14.9	0.2	-2.4	7.9	14.9	0.0	-2.5	7.9	14.9	0.0	-2.3	7.9	14.9	0.0	-2.9	0.1
40	8.0	15.5	0.0	-1.4	8.2	15.8	0.3	-1.1	8.2	15.8	0.3	-2.3	8.2	15.8	0.3	-2.9	0.2
41	8.5	15.3	0.5	-2.2	8.4	15.1	0.2	-2.4	8.4	15.1	0.2	-2.2	8.4	15.1	0.2	-2.8	0.1
42	8.4	15.0	-0.1	-0.6	8.4	15.0	0.0	-0.4	8.4	15.0	0.0	-0.8	8.4	15.0	0.0	-0.5	0.0
43	8.6	15.7	0.2	-1.0	8.5	15.5	0.1	-0.9	8.5	15.5	0.1	-1.1	8.5	15.5	0.1	-0.8	0.1
44	8.6	15.8	0.0	-2.8	8.7	15.7	0.2	-2.9	9.2	15.7	0.7	0.0	8.7	15.7	0.2	-2.7	0.6
45	7.9	15.4	-0.7	-2.9	8.1	15.5	-0.6	-2.8	8.1	15.5	-1.1	-2.8	8.1	15.5	-0.6	-2.9	0.2
46	7.9	14.6	0.0	-3.3	8.0	14,7	-0.1	-3.5	8.0	14.7	-0.1	-3.5	8.0	14.7	-0.1	-3.6	0.1
47	7.3	15.6	-0.6	-2.8	7.2	15.4	-0.8	-2.9	7.2	15.4	-0.8	-3.1	7.2	15.4	-0.8	-3.4	0.1
48	9.1	15.6	1.8	-2.8	9.1	15.7	1.9	-3.0	9.1	15.7	1.9	-3.1	9.1	15.7	1.9	-2.8	0.0
49	8.2	15.2	-0.9	-2.6	8.1	15.1	-1.0	-2.6	8.1	15.1	-1.0	-2.7	8.1	15.1	-1.0	-3.2	0.1
50	8.6	15.3	0.4	-2.7	8.2	14.9	0.1	-3.2	8.2	14.9	0.1	-3.3	8.2	14.9	0.1	-3.5	0.4
51	8.5	14.6	-0.1	-3.3	8.6	14.9	0.4	-3.1	8.6	14.9	0.4	-3.4	8.6	14.9	0.4	-3.6	0.1
52	9.6	15.5	0.0	-2.5	9.2 9.4	15.1 15.4	0.6	-3.2	9.2 9.4	15.1 15.4	0.6	-3.2	9.2 9.4	15.1 15.4	0.6	-3.6 -3.0	0.4
53 54	9.6 8.8	15.7 14.7	-0.8	-2.6 -3.2	9.4 8.9	15.4	-0.5	-2.5	9.4 8.9	15.4	-0.5	<u>-2.9</u> -3.1	9.4 8.9	15.4	-0.5	-3.0	0.2
55	8.9	14.7	0.1	-3.2	8.7	14.9	-0.5	-3.2	8.7	14.9	-0.5	-3.4	8.7	14.9	-0.5	-3.3	0.1
56	9.1	14.7	0.1	-3.1	9.1	14.5	-0.2	-3.1	9.1	14.5	-0.2	-3.3	9.1	14.5	0.4	-3.7	0.2
57	8.9	14.7	-0.2	-3.3	9.0	15.0	-0.1	-3.3	9.0	14.7	-0.1	-3.5	9.0	14.7	-0.1	- <u>3.2</u> -3.8	0.0
58	8.8	14.0	-0.2	-1.5	8.4	15.2	-0.6	-2.0	<del>3</del> .0 8.4	15.2	-0.6	-2.2	9.0 8.4	15.2	-0.6	-2.1	0.4
59	8.3	14.5	-0.5	-3.4	8.3	14.6	-0.0	-3.3	8.3	14.6	-0.0	-3.5	8.3	14.6	-0.1	-3.7	0.4
60	8.6	14.7	0.3	-3.9	8.9	15.2	0.6	-3.6	8.9	15.2	0.6	-3.7	8.9	15.2	0.6	-4.1	0.0
61	9.5	16.3	0.9	-3.4	9.1	15.9	0.2	-3.9	9.1	15.9	0.2	-3.8	9.1	15.9	0.2	-4.2	0.4
62	9.1	15.5	-0.4	-3.5	9.1	15.5	0.0	-3.4	9.1	15.5	0.0	-3.7	9.1	15.5	0.0	-3.9	0.0
63	9.3	15.5	0.2	-3.3	9.3	15.5	0.2	-3.1	9.3	15.5	0.2	-3.4	9.3	15.5	0.2	-3.6	0.0
64	8.9	14.8	-0.4	-3.6	9.0	14.9	-0.3	-3.5	9.0	14.9	-0.3	-3.9	9.0	14.9	-0.3	-3.9	0.1
65	9.6	15.1	0.7	-3.3	9.8	15.5	0.8	-3.1	9.8	15.5	0.8	-3.4	9. <del>0</del>	15.5	0.8	-3.3	0.2
66	9.5	15.7	-0.1	-3.6	9.5	15.7	-0.3	-3.5	9.5	15.7	-0.3	-3.7	9.5	15.7	-0.3	-3.9	0.0
67	10.3	15.7	0.8	-2.5	10.3	15.7	0.8	-2.3	10.3	15.7	0.8	-2.7	10.3	15.7	0.8	-2.9	0.0
68	9.7	14.8	-0.6	-2.9	9.6	14.9	-0.7	-3.0	9.6	14.9	-0.7	-3.4	9.6	<u>14.9</u>	-0.7	-3.5	0.1
69	9.9	14.9	0.2	-3.4	9.8	14.8	0.2	-3.6	9.8	14.8	0.2	-3.7	9.8	14,8	0.2	-3.8	0.1
70	10.4	15.2	0.5	-2.7	10.0	15.0	0.2	-3.1	10,0	15.0	0.2	-3.2	10.0	15.0	0.2	-3.4	0.4
71	9.3	14.5	-1.1	-3.5	9.1	14.4	-0.9	-3.8	9.1	14.4	-0.9	-4.0	9.1	14.4	-0.9	-4.3	0.2
72	8.0	15.7	-1.3	-2.2	7.8	15.6	-1.3	-2.3	7.8	15.6	-1.3	-2.6	7.8	15.6	-1.3	-2.8	0.2

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Comcast

1 N. Donelson St. 24 Hour Level Variation Wavetek SDA-5000 Signal Level Meter

	Equipn	oont I le	od.	100' d	ron Wr	watak	- · ·				r S/N 42	240571		Data	08/19/0	e	
	<u>-qupn</u>	nemt Oa	eu.	100 0	10p, w/	avelek	3UA-30	UU Siy			1 3/11 4/	40571		Date:	00/19/0		
Run	_1				2				3				4				
1	Time: 0	1:21:03			Time: 0	7:11:37			Time: 0	7:11:37		_	Time: 0	7:11:37			
Temp	75	_			74				80			_	85				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	24 HR
73	9.5	14.7	1.5	-2.9	9.7	15.1	1.9	-3.0	9.7	15.1	1.9	-3.2	9.7	15.1	1.9	-3.2	0.2
74	9.3	14.9	-0.2	-4.0	9.4	15.1	-0.3	-3.9	9.4	15,1	-0.3	-4.0	9.4	15.1	-0.3	-4.2	0.1
75*1																	
76	9.5	15.1	0.5	-3.2	9.6	15.3	0.9	-3.1	9.6	15.3	0.9	-3.2	9.6	15.3	0.9	-3.5	0.1
77	9.0	16.1	-0.5	-3.0	8.7	15.9	-0.9	-3.2	8.7	15.9	-0.9	-3.5	8.7	15.9	-0.9	-3.3	0.3
78*1											_						
Min Value	4.0	11.8	-1.7	-5.1	4.2	12.0	-1.6	-4.8	4.2	12.0	-2.7	-4.0	5.8	12.0	-1.4	-4.3	0.0
Max Value	10.4	16.7	2.2	1.7	10.3	16.1	2.8	1.8	10.3	16.1	2.8	2.0	10.3	16.1	2.8	1.7	3.2

Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast of Alexandria's subscriber count is 49,326 as of 07/01/06. All of Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

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The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

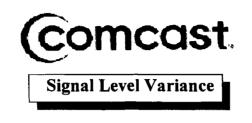
The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

### Concast

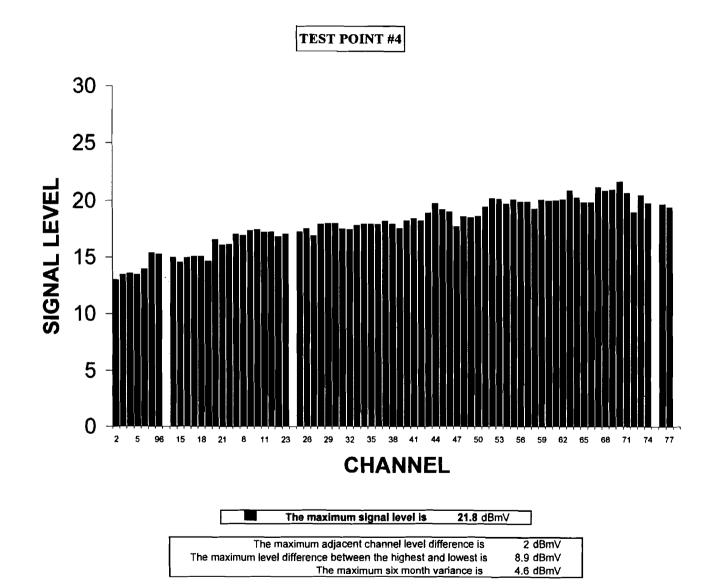
Kenwood St. & Fern St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

	Date: 08/3	0/06	Time: 12:4	5 pm	_	Temp: 78	
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max
	2	8.0	1.0	68.0	76.2	51.1	4.5000
	95	1.9	0.8	71.0	70.4	53.0	4.5000
	21	1.1	0.8	75.4	69.1	49.2	4.5001
	8	1.8	0.7	70.2	67.0	53.4	4.5001
	28	1.3	0.7	68.2	66.3	51.9	4.5000
	32	1.5	0.8	68.0	73.2	51.1	4.5001
	47	1.9	0.7	72.1	66.1	50.8	4.5000
	58	1.3	0.7	69.3	70.4	52.6	4.5000
	72	0.9	0.9	68.7	64.4	49.1	4.5000
Minimum	values:	0.9	0.7	68.0	64.4	49.1	4.5000
Maximum	values:	8.0	1.0	75.4	76.2	53.4	4.5001



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							T	'est P	oint #	4							
	(Cor	nca	st				Ken	wood S	t. & Fer	n St.							
				4001 4	14/-				vel Vari		- 0.01.4			D-4	0014010	~	
Run	Equipri	nent Us	ea:	<u>100'a</u>	rop, vva	IVELEK	5DA-50	UU Sigi	al Leve		<u>r S/N 4</u>	340571	4	Date:	08/19/0	<u> </u>	
Run	Time: 0	0.41.20			_∠ Time: 0	8-24-22			3 Time: 1	2-64-67			•	8:39:56			
Temp	75	0.41.38			74	0,34.23	_ <u>_</u>		80	2.04.07			85	0.39.30			
Chan	Vid	Aud	Adjoint	6 Mth		Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjcnt	6 Mth	24 HR
Chan	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff		Diff	Diff	Diff	Vid Diff
2	13.0	12.6		0.5	12.9	12.4		0.5	12.5	12.4		-0.1	12.7	12.3		0.1	0.5
3	13.5	14.9	0.5	0.0	13.4	14.9	0.5	0.0	13.3	15.0	0.8	-0.1	13.4	15.0	0.7	0.0	0.2
4	13.6	14.8	0.1	-1.3	13.8	14.8	0.4	-0.7	13.0	14.4	-0.3	-2.1	14.2	15.5	0.8	-0.9	1.2
5	13.5	13.8	-0.1	0.0	14.2	14.5	0.4	0.8	13.7	14.4	0.7	1.0	14.2	14.7	0.0	1.5	0.7
6	14.0	15.0	0.5	-0.5	14.4	15.4	0.2	0.2	13.9	15.2	0.2	-0.4	13.9	15.1	-0.3	-0.4	0.5
95	15.4	14.6	1.4	3.8	15.1	14.3	0.7	3.7	14.9	14.5	1.0	3.2	15.1	14.6	1.2	3.4	0.5
96	15.3	14.8	-0.1	1.2	15.4	14.8	0.3	1.3	14.7	14.7	-0.2	0.5	14.8	14.4	-0.3	0.6	0.7
99*1																Γ	
14	15.0	16.4	0.4	0.1	14.9	16.1	0.2	0.2	14.1	16.0	-0.2	-0.6	14.5	<u>16.1</u>	-0.1	-0.2	0.9
15	14.6	14.6	-0.4	0.3	14.7	14.8	-0.2	0.6	14.3	14.8	0.2	0.0	14.6	14.9	0.1	0.3	0.4
16	15.0	15.7	0.4	-0.4	15.0	15.7	0.3	-0.4	14.6	15.6	<u>0.3</u>	-0.8	14.8	15.6	0.2	-0.6	0.4
17	15,1	<u>1</u> 3.6	0.1	-0.7	15.2	13.6	0.2	-0.5	15.0	13.8	0.4	-0.9	15.0	13.6	0.2	-0.9	0.2
18	15.1	15.2	0.0	0.2	15.0	15.1	-0.2	0.3	14.9	14.9	-0.1	0.2	14.9	14.8	-0.1	0.2	0.2
19	14.7	12.9	-0.4	-0.6	14.6	12.6	-0.4	-0.6	15.2	14.2	0.3	-0.1	15.4	14.2	0,5	0.1	0.8
20	16.6	16.3	1.9	-0.3	16.6	16.0	2.0	-0.3	16.7	15.8	1.5	0.0	16.7	15.6	1.3	0.0	0.1
21	16.1	14.4	-0.5	-1.8	16.3	14.6	-0.3	-1.7	15.8	14.5	-0.9	-2.3	15,9	14.4	-0.8	-2.2	0.5
22	16.2	15.0	0.1	-0.8	16.2	15.0	-0.1	-0.7	15.9	15.0	0.1	-1.1	16.1	14.9	0.2	-0.9	0.3
7	17.1	15.2	0.9	0.6	16.3	14.3	0.1	-0.7	16.4	14.8	0.5	-0.2	16,1	14.4	0.0	-0.5	1.0
8	17.0	14.9	<u>-0.1</u> 0.4	-0.1	17.1	14.9	0.8	-0.1	<u>16.6</u> 17.7	14.9	0.2	-0.7 -0.7	16.7 17.4	14.8 15.5	0.6	-0.6 -1.0	0.5
9	17.4	15.2		-1.6	17.1	14.8		-1.3		15.9	1.1	-0.7	17.4	15.5	-0.2	-1.0	0.6
10	17.5	15.5	0.1	-0.3 -1.0	<u>17.7</u> 17.4	15.6 15.4	0.6	-0.1	<u>16.8</u> 16.9	15.2 15.5	0.9	-1.1	16.8	15.5	-0.2	-0.7	0.9
12	<u>17.3</u>	<u>15.3</u> 15.0	0.0	-1.3	17.4	15.4	0.4	-0.7	17.1	15.5	0.1	-1.5	17.2	15.2	0.4	-1.5	0.8
13	16.9	15.0	-0.4	-1.4	17.3	15.2	-0.5	-1.1	16.6	15.1	-0.5	-2.1	16.6	14.9	-0.6	-2.1	0.7
23	17.1	15.0	0.2	-1.4	17.2	14.9	-0.1	-1.2	16.7	15.0	0.1	-2.2	16.7	14.9	0.1	-2.2	0.5
24*1	<u> </u>	13.0	0.2		17.2	14.5	-0.1		10.1	10.0	- 0.1		10,7	14.0	<u></u>		0.0
25	17.3	15.0	-0.3	-0.5	17.6	15.0	-0.1	-0.3	16.8	15.0	-0.3	-1.3	17.0	14.9	-0.3	-1.1	0.8
26	17.6	15.4	0.3	-1.3	17.7	15.3	0.1	-1.4	17.1	15.2	0.3	-1.9	17.3	15.2	0.3	-1.7	0.6
27	17.0	14.1	-0.6	-2.0	17.6	14.4	-0.1	-1.4	16.5	14.2	-0.6	-2.6	16.7	14.1	-0.6	-2.4	1.1
28	18.0	15.7	1.0	-1.5	18.3	15.9	0.7	-1.4	17.6	15.7	1.1	-2.3	17.6	15.6	0.9	-2.3	0.7
29	18.1	15.9	0.1	-1.4	17.7	15.2	-0.6	-1.7	17.7	15.9	0.1	-1.9	17.7	15.8	0.1	-1.9	0.4
30	18.1	15.6	0.0	-1.4	18.1	15.5	0.4	-1.4	17.5	15.3	-0.2	-2.3	17.6	15.3	-0.1	-2.2	0.6
31	17.6	15.0	-0.5	-1.6	17.7	15.0	-0.4	-1.4	17.3	15.1	-0.2	-2.2	17.5	15.1	-0.1	-2.0	0.4
32	17.5	14.9	-0.1	-2.3	17.9	15.0	0.2	-1.9	17.3	15.1	0.0	-2.8	17.6	15.3	0.1	-2.5	0.6

								COLL	VIIII m								
	(Col	nca	st						it. & Fer vel Vari								
	Equipr	nent Us	ed:	100' d	rop, Wa	avetek S			nal Leve		r S/N 43	34057(		Date: (	08/19/0	6	
Run	1	<u> </u>			2				3				4				
	Time: 0	0:41:39			Time: 0	6:34:23			Time: 1	2 54 57			Time: 1	8-39-56			
Temp	75				74				80				85	0.00.00			
Chan	Vid	Aud	Adicnt	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	
33	17.9	14.9	0.4	-1.4	18.0	14.8	0.1	1.4	17.9	15.2	0.6	-1.7	17.8	15.0	0.2	-1.8	0.2
34	18.0	15.2	0.1	-1.6	17.9	15.0	-0.1	-1.8	17.8	15.2	-0.1	-2.1	17.8	15.1	0.0	-2.1	0.2
35	18.0	15.5	0.0	-1.8	18.2	15.4	0.3	-1.7	17.7	15.5	-0.1	-2.3	17.9	15.6	0.0	-2.1	0.2
36	18.0	15.2	0.0	-2.3	18.1	15.3	-0.1	-2.4	17.5	15.1	-0.2	-3.1	17.9	15.3	0.0	-2.7	0.6
37	18.3	15.5	0.3	-2.1	18.4	15.4	0.3	-2.1	17.9	15.3	0.4	-2.8	18.1	15.3	0.2	-2.6	0.5
38	18.0	15.4	-0.3	-2.2	18.0	15.3	-0.4	-2.0	17.6	15.4	-0.3	-2.7	17.9	15.5	-0.2	-2.4	0.4
39	17.6	14.6	-0.4	-2.2	17.7	14.7	-0.3	-2.2	17.4	14.7	-0.2	-2.6	17.4	14.7	-0.5	-2.6	0.3
40	18.3	15.3	0.7	-2.0	18.3	15.3	0.6	-2.0	18.2	15.5	0.8	-2.7	18.2	15.4	0.8	-2.7	0.1
41	18.5	15.2	0.2	-1.6	18.5	15.0	0.2	-1.8	18.2	15.1	0.0	-2.6	18.5	15.2	0.3	-2.3	0.3
42	18.3	15.1	-0.2	-0.1	18.4	15.3	-0.1	-0.1	18.1	15.1	-0.1	-1.0	18.2	15.1	-0.3	-0.9	0.3
43	19.0	15.4	0.7	-0.1	18.9	15.3	0.5	-0.2	18.5	15.3	0.4	-0.2	18.6	15.3	0.4	-0.1	0.5
44	19.8	15.8	0.8	-1.3	19.8	15.8	0.9	-1.5	19.5	16.0	1.0	-1.9	19.7	15.9	1.1	-1.7	0.3
45	19.3	15.4	-0.5	-1.7	19.6	15.7	-0.2	-1.4	19.0	15.6	-0.5	-2.1	19.3	15.7	-0.4	-1.8	0.6
46	19.1	15.4	-0.2	-1.8	19.6	15.8	0.0	-1.6	19.3	15.9	0.3	-1.9	19.3	15.7	0.0	-1.9	0.5
	17.8	16.9	-1.3	-2.2	17.9	16.8	-1.7	-1.9	17.3	16.8	-2.0	-2.9	17.5	16.9	-1.8	-2.7	0.6
48	18.7	14 <u>.6</u>	0.9	-2.4	18.8	14.7	0,9	-2.2	18.3	14.6	1.0	-3.1	18.2	14.3	0.7	-3.2	0.6
49	18.6	14.8	-0.1	-2.5	18.6	14.6	-0.2	-2.6	18.5	15.0	0.2	-3.0	18.5	14.9	0.3	-3.0	0.1
50	18.7	14.9	0.1	-3.0	18.8	14.8	0.2	-2.9	18.5	15.1	0.0	-3.4	18.6	14.9	0.1	-3.3	0.3
51	19.5	15.3	0.8	-2.9	19,7	15.4	0.9	-2.8	19.2	15.5	0.7	-3.3	19.0	15.1	0.4	-3.5	0.7
52	20.3	15.2	0.8	-2.2	20.1	14.8	0.4	-2.4	19.8	15.0	0.6	<u>-3.2</u>	<u>19.8</u>	14.8	0.8	-3.2	0.5
53	20.2	15.2	-0.1	-2.6	20.5	15.2	0.4	-2.1	20.0	15.2	0.2	-2.8	20.0	15.1	0.2	-2.8	0.5
54	19.8	14.7	-0.4	-2.5	20.0	14.8	-0.5	-2.4	19.5	14.9	-0.5	-3.2	19.6	14.8	-0.4	-3.1	0.5
55	20.2	15.6	0.4	-2.8	20.1	15.3	0.1	-2.9	19.7	15.5	0.2	-3.4	19.9	15.5	0.3	-3.2	0.5
56	20.0	14.8	-0.2	-2.4	19.9	14.5	-0.2	-2.4	19.4	14.5	-0.3	-3,1	19.8	14.7	-0.1	-2.7	0.6
<u>57</u> 58	20.0	15.0	0.0	-2.6	19.9	15.0	0.0	-2.7	19.4	14.6	0.0	-3.7	20.0	15.1	0.2	-3.1	0.6
<u> </u>	19.4	15.1	-0.6	-1.6	19.3	15.0	-0.6	<u>-1.8</u> -3.0	18.9	15.1	-0.5	-2.2	19,1	15.1	-0.9	-2.0	0.5
<u> </u>	20.2 20.1	14.9 15.2	0.8	-2.9	20.0 20.1	14.8 15.2	0.7	-3.0	<u>19.7</u> 19.7	<u>14.8</u> 15.1	0.8	-3.4	19.7	<u>14.6</u> 15.3	0.6	-3.4 -3.4	0.5
61	20.1	16.0	0.0	-3.2	20.1	16.0	0.1	-3.4	19.7	15.1	0.0	-3.8	<u>20.1</u> 19.9	15.3	-0.2	-3.4	0.4
62	20.1	15.5	0.0	-3.5	20.1	15.6	0.0	-3.4	19.0	15.9	0.0	-4.0	20.0	15.6	0.1	-3.9	0.3
63	21.0	15.7	0.8	-2.3	20.2	15.5	0.7	-2.3	20.6	15.5	0.0	-2.9	20.0	15.5	0.1	-3.5	0.4
64	20.4	15.7	-0.6	-2.8	20.9	15.5	-0.7	-2.9	19.8	15.3	-0.8	-2.9	20.6	15.5	-0.6	-2.9	0.4
65	20.4	15.1	-0.4	-2.6	19.8	14.9	-0.4	-2.5	19.6	14.8	-0.8	-3.7	19.8	14.9	-0.0	-3.5	0.5
66	20.0	15.5	0.0	-3.8	20.2	15.6	0.4	-3.6	19.5	15.6	0.2	-3.7	20.0	14.9	0.2	-3.4	0.5
67	21.3	15.5	1.3	-2.2	21.5	15.6	1.3	-2.1	21.0	15.5	1.3	-2.7	20.0	15.6	1.1	-4.0	0.5
68	21.0	15.0	-0.3	-2.8	21.0	15.0	-0.5	-2.7	20.7	14.9	-0.3	-3.3	20.8	14.9	-0.3	-2.0	0.3
69	21.1	15.2	0.1	-3.0	21.1	15.1	0.1	-2.8	20.9	15.3	0.2	-3.1	20.8	15.6	0.5	-2.7	0.3
70	21.8	15.4	0.7	-2.4	21.8	15.5	0.7	-2.3	21.3	15.6	0.2	-3.0	21.3	15.3	0.0	-2.7	0.4
71	20.8	14.7	-1.0	-3.4	20.8	14.7	-1.0	-3.3	20.4	14.8	-0.9	-3.8	20.6	14.8	-0.7	-3.6	0.4
72	19.1	15.6	-1.7	-4.0	19.1	15.4	-1.7	-4.0	18.8	15.6	-1.6	-2.6	19.2	15.8	-1.4	-2.2	0.4

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	Cor Equipn			100' d	rop, Wa	vetek :	24 H	lour Le	it. & Fer vel Vari nal Leve	ation	- r S/N 4	340571		Date:	08/19/0	6	
Run	1				2			¥	3				4			<u> </u>	
	Time: 0	0:41:39			Time: 0	6:34:23		_	Time: 1	2:54:57			Time: 1	8:39:56			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjont	6 Mth	24 HR
73	20.6	15.3	1.5	-3.1	20.5	15.2	1.4	-3.2	20.2	15.2	1.4	-3.7	20.4	15.3	1.2	-3.5	0.4
74	19.9	15.0	-0.7	-4,1	20.1	15.2	-0.4	-4.0	19.5	15.1	-0.7	-4.6	19.7	15.1	-0.7	-4.4	0.6
75*1																	
76	19.8	14.8	0.3	-2.7	19.9	15.0	0.3	-2.7	19.4	14.7	0.0	-3.4	19.7	14.8	0.2	-3.1	0.5
77	19.5	15.7	-0.3	-2.9	19.6	15.9	-0.3	-2.5	19.4	16.0	0.0	-3.2	19.5	15.8	-0.2	-3.1	0.2
Min Value	13.0	12.6	-1.7	-4.1	12.9	12.4	-1.7	-4.0	12.5	12.4	-2.0	-4.6	12.7	12.3	-1.8	-4.4	0.1
Max Value	21.8	16 <u>.</u> 9	1.9	3.8	21.8	16.8	2.0	3.7	21.3	16.8	1.5	3.2	21.3	16.9	1.3	3.4	1.2

Notes:

\*1 - Channel removed from Analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. **Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line.** Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

# Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/- 2dB.

## Comeast

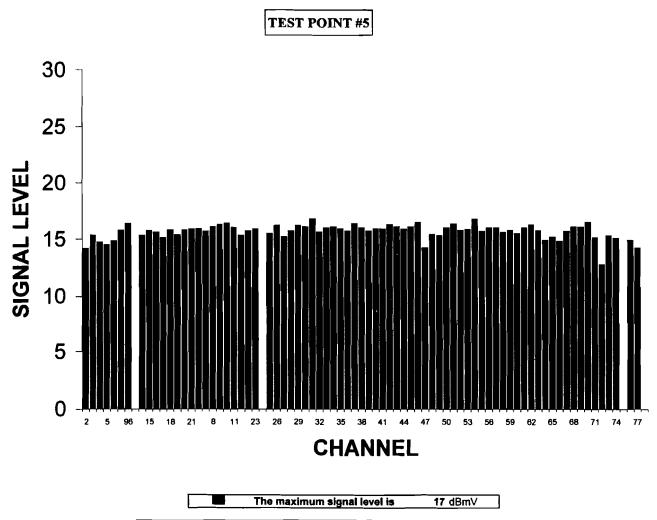
### 1121 Allison St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

	Date: 08/3	0/06	Time: 1:25	pm	Temp: 75					
:		FREQ. RSP	HUM%	CSO	СТВ	C/N	4.5 DIFF			
	<u>CH.</u>	2dB Max	3% <u>Max</u>	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	0.7	1.1	70.9	67.5	50.4	4.5000			
	95	1.7	0.9	75.4	68.8	52.2	4.5000			
	21	1.4	0.8	77.1	65.9	51.8	4.5001			
	8	1.7	0.8	73.6	68.8	51.6	4.5001			
	28	1.3	0.8	66.4	63.3	50.0	4.5000			
	32	0.8	0.8	66.2	61.3	50.6	4.5001_			
	47	1.0	1.0	67.3	60.7	51.2	4.5000			
	58	0.9	0.9	68.9	59.6	52.0	4.5000			
	72	1.1	1.2	68. <del>9</del>	66.7	49.6	4.5000			
Minimum	Minimum values:		0.8	66.2	59.6	49.6	4.5000			
Maximum	Maximum values:		1.2	77.1	68.8	52.2	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum adjacent channel level difference is	2.6 dBmV
The maximum level difference between the highest and lowest is	4.5 dBmV
The maximum six month variance is	7.4 dBmV

						Test Point #5											
	(Cor	nca	st.				-	121 A	lison St	-							
							- · ·		vel Vari								
	Equipn	nent Us	ed:	<u>100' d</u>		vetek	SDA-50	00 Sigi	nal Leve	el Mete	r S/N 4	340571	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	Date:	<u>08/1</u> 9/0	6	
Run	1				2				3				4				
	Time: 0	0:46:07			Time: D	6:37:41			Time: 1	2:59:44				8:44:03			
Temp	75		-		_74				80				85				
Chan	Vid	Aud	Adjont		Vid	Auđ	Adjcnt		Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjont	6 Mth	
	Lvl	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	Vid Diff
2	14.2	12.0		5.4	14.6	12.6		5.8	13.7	11.9		4.8	14.0	12.0		4.9	0.9
3	15.4	15.7	1.2	5.6	15.0	14.9	0.4	5.2	14.8	15.6	1.1	4.9	15.0	15.5	1.0	4.7	0.6
4	14.8	14.8	-0.6	6.9	15.2	14.8	0.2	4.8	14.5	14.8	-0.3	4.1	14.7	14.9	-0.3	3.8	0.7
5	14.6	13.9	-0.2	5.5	15.3	14.2	0.1	6.2	15.2	15.0	0.7	5.5	15.4	15.1	0.7	6.0	0.8
6	14.9	14.9	0.3	5.0	15.2	15.1	-0.1	5.4	13.7	15.1	-1.5	4.1	14.1	15.1	-1.3	4.0	1.5
95	15.9	14.4	1.0	7.4	16.2	14.7	1.0	5.8	15.1	13.9	1.4	4.7	15.5	14.1	1.4	4.9	1.1
96	16.5	15.2	0,6	6.3	16.3	14.7	0.1	6.1	16.0	15.1	0.9	5.6	16.3	15.2	0.8	5.8	0.5
99*1																L	
14	15.4	15.8	-1.1	5.0	15.6	16.2	-0.7	5.2	15.0	15.9	-1.0	4.5	14.8	15.4	-1.5	4.1	0.8
15	15.8	15.0	0.4	5.4	15.9	15.0	0.3	5.6	15.3	14.9	0.3	4.7	15.6	15.0	0.8	5.0	0.6
16	15.7	15.4	-0.1	4.3	15.8	15.0	-0.1	4.7	15.2	14.8	-0.1	3.8	15.4	14.9	-0.2	3.7	0.6
17	15.2	13.3	-0.5	4.2	15.6	14.0	-0.2	4.5	14.8	13.4	-0.4	3.7	14.8	13.1	-0.6	3.4	0.8
18	15.9	15.9	0.7	5.0	15.6	15.4	0.0	4.8	15.3	15.8	0.5	4.3	15.9	16.2	1.1	4.7	0.6
19	15.5	15.2	-0.4	4.2	15.3	14.8	-0.3	3.9	14.8	15.0	-0.5	3.6	15.3	15.2	-0,6	3.7	0.7
20	15.9	14.5	0.4	5.0	16.2	15.0	0.9	5.3	15.4	14.5	0.6	4.2	15.5	14.3	0.2	4.0	0.8
21	16.0	14.7	0.1	4.1	15.9	14.2	-0.3	4.0	15.5	14.7	0.1	3.5	15.9	14.8	0.4	3.5	0.5
22	16.0	15.0	0.0	4.6	16.2	15.0	0.3	4.8	15.5	15.0	0.0	3.8 5.0	16.0	15.2	0.1	4.0	0.7
	15.8	14.2		4.8	16.6 15.9	14.9	0.4	5.6	15.9	15.1	-1.1	3.2	15.6 16.1	14.3	-0.4	4.0	1.0
8	16.2	15.3	0.4	4.8 4.1	15.9	14.4	-0.7	4.7 4.5	14.8 15.7	14.9 15.3	0.9	<u>3.2</u> 1.8	16.1	16.5	0.5	<u>4.3</u> 3.2	1.4
10	16.4 16.5	15.2 15.5	0.2	4.1	17.0	14.8 15.9	0.2	4.5	16.1	15.3	0.9	3.8	15.7	15.2	-0.5	3.0	1.3
11	16.5	15.5	-0.4	3.8	17.0	15.9	-1.1	3.4	15.9	15.7	-0.2	3.0	16.2	15.2	0.5	3.2	0.3
12	15.4	14.3	-0.4	3.0	15.9	15.4	-0.3	3.4	15.9	14.6	-0.2	2.6	15.6	14.7	-0.6	2.9	0.3
12	15.4	14.3	0.4	3.2	15.8	14.2	0.2	3.4	15.2	14.0	0.0	2.6	15.6	15.4	-0.0	2.5	0.4
23	16.0	15.5	0.4	3.5	16.0	15.2	0.2	3.4	15.2	15.9	0.0	2.8	15.8	16.0	0.3	2.5	0.0
24*1	10.0	- 10.7	<u> </u>	5.5	10.0	13.3	1 <sup>0,</sup>	0.7	10.0	10.0	- <del></del>	2.0	10.0	+	+- <u></u>	<u></u>	1
25	15.6	15.0	-0.4	4.6	15.9	15.1	-0.1	5.0	15.1	15.1	-0.4	3.9	15.5	15.2	-0.3	3.9	0.8
25	16.3	15.7	0.7	4.0	16.1	15.1	0.2	4.0	15.4	15.6	0.3	3.0	15.9	15.7	0.4	3.1	0.0
20	15.3	13.8	-1.0	3.5	16.1	14.6	0.2	4.4	14.7	13.8	-0.7	2.8	15.3	14.1	-0.6	3.1	1.4
28	15.8	15.4	0.5	3.7	16.0	15.2	-0.1	4.0	15.1	15.4	0.4	2.9	15.6	15.5	0.3	3.1	0.9
20	16.3	15.3	0.5	4.6	16.3	15.1	0.3	4.3	15.6	15.4	0.5	3.5	15.8	15.3	0.2	3.4	0.3
30	16.2	15.0	-0.1	3.7	16.7	15.4	0.4	4.0	15.8	15.2	0.2	3.1	16.0	15.1	0.2	2.9	0.9
31	16.9	15.8	0.7	4.1	16.8	15.3	0.4	4.0	15.9	15.5	0.1	2.9	16.5	15.8	0.5	3.2	1.0
32	15.7	14.7	-1.2	3.3	16.0	14.8	-0.8	3.9	15.1	14.8	-0.8	2.6	15.5	14.9	-1.0	2.6	0.9

Test	Point	t <b>#5</b>
1121	Allisor	St.

# Comcast

#### 24 Hour Level Variation d: 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057( Date: 08/19/06

	Equipment Used: 100' drop, Wavetek SDA-5								ur Level Variation 0 Signal Level Meter S/N 434057( Da						08/19/0	6	
Run	1				2				3			· · · · ·	4				
	Time: 0	0:46:07			Time: 0	5:37:41			Time: 1	2:59:44			Time: 1	8:44:03		-	
Temp	75				74	-			80				85				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Âud	Adjoint	6 Mth	24 HR
33	16.1	15.0	0.4	4.2	16.2	15.1	0.2	4.3	15.2	14.9	0.1	3.2	15.5	14.8	0.0	3.1	1.0
34	16.2	16.0	0.1	3.4	16.2	15.7	0.0	3.2	15.6	16.1	0.4	2.6	16.1	16.3	0.6	2.5	0.6
35	16.0	15.3	-0.2	3.5	16.3	15.5	0.1	3.8	15.3	15.4	-0.3	2.6	<u>15.</u> 6	15.4	-0.5	2.6	1.0
36	15.8	15.1	-0.2	2.9	15.9	15.0	-0.4	3.0	15.1	15.1	-0.2	2.0	15.1	14.8	-0.5	1.6	0.8
37	16.5	<u>15.</u> 5	0.7	_2.7	16.4	15.0	0.5	2.7	15.8	15.5	0.7	1.9	16.2	15.6	1.1	<u>1.9</u>	0.7
38	16.1	15.1	-0.4	2.9	16.2	15.1	-0.2	2.9	15.3	14.9	-0.5	1.9	15.8	15.0	-0.4	2.0	0.9
39	15.8	15.1	-0.3	2.9	15.8	14.9	-0.4	2.7	15.2	15.3	-0.1	2.0	15.4	15.1	-0.4	1.9	0.6
40	16.0	15.7	0.2	2.8	15.8	15.4	0.0	2.6	15.2	15.7	0.0	2.1	15.7	15.8	0.3	2.0	0.8
41	16.0	14.9	0.0	3.0	16.2	15.2	0.4	2.9	15.4	15.1	0.2	2.0	15.6	14.8	-0.1	2.0	0.8
42	16.4	15.8	0.4	4.6	16.3	15.6	0.1	4.6	15.4	15.7	0.0	3.6	15.9	15.6	0.3	3.7	1.0
43 44	16.2	15.7	-0.2	4.8	16.4	15.6	0.1	5.1	15.5	15.7	0.1	3.9	15.9	15.7	0.0	3.8	0.9
44	16.0	15.0	-0.2	2.8	16.1 16.4	15.3	-0.3	2.9	15.2	15.1	-0.3	1.8	15.6	15.2	-0.3	2.0	0.9
45	16.2 16.6	15.7 15.9	0.2	2.2 3.4	16.4	15.8 16.1	0.3	2.5	15.7 15.9	16.0 15.9	0.5	1.4 2.5	15.9	15.8	0.3	1.6	0.7
40	14.3	15.9	-2.3	2.8	14.5	15.8	-2.3	3.4	13.5	15.9	-2.4	1.9	16.4 14.0	16.0 15.6	0.5	2.8	0.9
47	14.5	15.5	1.2	2.6	14.5	15.0	1.2	2.9	13.5	15.7	1.2	1.9	14.0	15.0	1.1	1.0	1.0
49	15.4	14.5	-0.1	2.0	15.9	15.0	0.2	2.5	14.7	14.8	0.0	1.0	15.0	14.8	-0.1	1.5	1.0
50	16.1	15.1	0.7	2.2	16.1	15.0	0.2	2.2	15.2	15.0	0.5	1.3	15.9	15.2	0.9	1.8	0.9
51	16.5	16.2	0.4	2.6	16.8	16.2	0.7	2.7	15.9	16.5	0.7	1.7	16.4	16.5	0.5	1.9	0.9
52	15.9	15.0	-0.6	2.0	16.3	15.5	-0.5	2.2	15.0	14.6	-0.9	1.0	15.6	14.9	-0.8	1.3	1.3
53	16.0	14.2	0.1	1.8	16.3	14.3	0.0	2.4	15.5	14.5	0.5	1.5	15.7	14.2	0.1	1.3	0.8
54	16.9	15.4	0.9	2.5	17.0	15.4	0.7	2.5	16.0	15.4	0.5	1.4	16.6	15.6	0.9	1.9	1.0
55	15.8	15.0	-1.1	1.9	16.3	15.6	-0.7	2.3	15.0	15.0	-1.0	0.9	15.6	15.1	-1.0	1.2	1.3
56	16.1	15.1	0.3	2.3	16.0	14.8	-0.3	2.2	15.6	15.4	0.6	1.5	15.6	14.9	0.0	1.0	0.5
57	16.1	14.9	0.0	2.0	16.2	14.9	0.2	2.1	15.3	15.0	-0.3	0.9	15.6	14.8	0.0	0.7	0.9
58	15.7	14.9	-0.4	3.1	16.1	15.2	-0.1	3.5	14.8	14.8	-0.5	2.1	15.3	14.8	-0.3	2.0	1.3
59	15.9	15.4	0.2	1.1	16.0	15.3	-0.1	1.3	15.1	15.3	0.3	0.1	15.4	15.2	0.1	0.2	0.9
60	15.6	15.0	-0.3	0.6	15.7	14.9	-0.3	0.7	15.0	15.1	-0.1	0.0	15.4	15.0	0.0	-0.1	0.7
61	16.1	15.8	0.5	0.8	16.0	15.6	0.3	0.5	15.2	15.7	0.2	-0.1	15.8	15.7	0.4	0.1	0.9
62	16.4	16.3	0.3	1.5	16.5	16.3	0.5	1.6	15.6	16.4	0.4	0.5	15.9	16.2	0.1	0.3	0.9
63	15.9	15. <del>0</del>	-0.5	1.6	15.9	15.7	-0.6	1.8	15.3	15.8	-0.3	0.9	15.6	15.6	-0.3	0.7	0.6
64	15,0	15.2	-0.9	0.9	15.0	15.2	-0.9	0.9	14.5	15.2	-0.8	0.2	14.7	15.0	-0.9	-0.2	0.5
65	15.3	15.5	0.3	0.7	15.6	15.7	0.6	1.0	14.7	15.4	0.2	-0.1	15.5	15.7	0.8	0.5	0.9
66	14.9	15.2	-0.4	0.0	15.3	15.5	-0.3	0.5	14.4	15.2	-0.3	-0.7	14.9	15.2	-0.6	-0.9	0.9
67	15.8	15.1	0.9	1.1	16.0	15.1	0.7	1.4	15.3	15.2	0.9	0.6	15.8	15.3	0.9	0.4	0.7
68	16.2	15.6	0.4	1.1	16.3	15.7	0.3	1.1	15.5	15.8	0.2	0.1	16.0	15.7	0.2	0.1	0.8
<u>69</u>	16.2	15.2	0.0	1.2	16.4	15.3	0.1	1.7	15.3	15.1	-0.2	0.3	16.0	15.4	0.0	0.7	1.1
70	16.6	15.7	0.4	1.7	16.5	15.4	0.1	1.6	15.7	15.8	0.4	0.6	16.1	16.0	0,1	0.6	0.9
<u>71</u> 72	15.2	15.1	-1.4 -2.4	0.4 -1.8	15.3	15.1	-1.2	0.7	14.0	14.8	-1.7	-0.8	14.4	15.0	-1.7	-0.9	1.3
12	12.8	14.9	-2.4	-1.8	13.0	15.1	-2.3	-1.4	11.8	14.9	-2.2	-2.7	12.1	15.1	-2.3	-3.1	1.2

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# Comcast

#### 1121 Allison St. 24 Hour Level Variation

	Equipment Used: 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 4340571 Date: 08/19/06																
Run	1				2				3				4				
	Time: 0	0:46:07			Time: 0	6:37:41			Time: 1	2:59:44		_	Time: 1	8:44:03			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adicnt	6 Mth	24 HR
73	15.4	15.0	2.6	0.5	15.6	14.9	2.6	1.0	14.1	14.8	2.3	-0.9	14.3	14.8	2.2	-1.2	1.5
74	15.2	15.1	-0.2	0.4	15.5	15.4	-0.1	0.7	13.9	15.1	-0.2	-0.9	14.3	15.0	0.0	-1.0	1.6
															<u> </u>		
76	15.0	15.3	-0.2	1.2	14.8	14.7	-0.7	1.0	13.3	15.2	-0.6	-0.6	14,1	15.0	-0.2	-0.3	1.7
77	14.3	<u>16.1</u>	-0.7	0.9	14.5	16.4	-0.3	1.1	12.8	16.0	-0.5	-0.6	13.7	16.1	-0.4	-0.2	1.7
78*1																	
Min Value	12.8	12.0	-2.4	-1.8	13.0	12.6	-2.3	-1.4	11.8	11.9	-2.4	-2.7	12.1	12.0	-2.4	-3.1	0.3
Max Value	16.9	16.3	2,6	7.4	17.0	16.4	2.6	6.2	16.1	16.5	2.3	5.6	16.6	16.5	2.2	6.0	1.7

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Notes:

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\*1 - Channel removed from Analog line-up

# (comcast.

**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Concast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

## Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

## Comeast

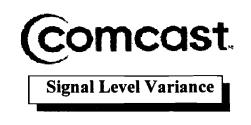
## 901 N. Kemper St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

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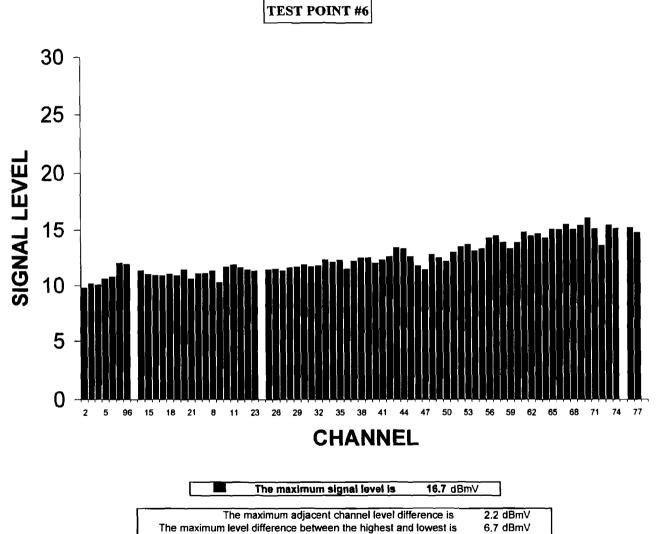
	Date: 08/3	0/06	Time: 11:1	9 am	Temp: 78					
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	1.2	0.9	75.1	61.9	49.7	4.5000			
	95	2.0	0.8	69.3	67.1	51.0	4.5000			
	21	0.8	0.8	75.4	69.5	50.2	4.5001			
	8	1.2	0.8	76.8	65.5	49.8	4.5001			
	28	1.0	0.8	69.4	70.5	<u>50.2</u>	4.5000			
	32	0.9	0.8	67.7	65.2	50.2	4.5001			
	47	0.9	1.0	66.1	66.2	49.6	4.5000			
	58	1.3	0.8	70.6	68.2	52.5	4.5000			
	72	1.2	1.0	65.8	64.4	48.5	4.5000			
Minimum	linimum values: 0.8		0.8	65.8	61.9	48.5	4.5000			
Maximum	aximum values: 2.0			76.8	70.5	52.5	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.

- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum six month variance is 5.5 dBmV

		Test Point #6															
	(Cor	nca	st.						emper : vel Vari		-						
	Equipm	nent Us	ed:	<u>100' d</u>	rop, Wa	vetek 3	SDA-50	00 Sigi	nal Leve	el Mete	r S/N 4	340571		Date:	08/19/0	6	
Run	1				2				3				4				_
<u> </u>	Time: 0	0:25:06			Time: 0	6: <u>22:18</u>			Time: 1	2:39:48				8:25:19			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjent		Vid	Aud	Adjont		Vid	Aud	Adjcnt		Vid	Aud	Adjont	6 Mth	24 HR
	Lvi	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	LvI	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	Vid Diff
2	9.8	12.4		-2.6	9.6	12.2		-2.8	9.6	12.4		-2.6	9.4	12.4		-3.1	0.4
3	10.2	14.7	0.4	-2.3	10.2	14.8	0.6	-2.9	10.0	14.6	0.4	-2.8	10.1	14.8	0.7	-3.3	0.2
4	10.1	14.3	-0.1	-3.8	11.0	15.2	0.8	-2.2	10.8	15.1	0.8	-2.9	11.0	15.3	0.9	-2.4	0.9
5	<u>10.6</u>	14.1	0.5	-1.8	11.2	14.7	0.2	-1.7	10.8	14.4	0.0	-1.8	10.4	14.1	-0.6	-2.5	0.8
<u>6</u>	10.8	15.3	0.2	-2.8	10.8	15.4	-0.4	-2.9	10.6	15.3	-0.2	-2.8	10.4	15.1	0.0	-3.3	0.4
95	12.0	14.6	1.2	-1.5	11.7	14.2	0.9	-1.8	11.9	14.7	1.3	-1.7	11.8	14.8	1.4	-1.3	0.3
96 99*1	11.9	14.8	-0.1	-1.8	11.9	14.7	0.2	-1.8	11.7	14.8	-0.2	-1.8	11.7	14.8	-0.1	-2.2	0.2
<u> </u>	11.2	10 7	- 0.0	- 27		46.4			40.7	10.0							
14	<u>11.3</u> 11.0	16.7 14.8	-0.6 -0.3	-2.7 -2.2	<u>11.1</u> 11.2	16.4 15.0	<u>-0.8</u> 0.1	<u>-2.8</u> -2.0	<u>10.7</u> 11.0	16.2 14.9	-1.0 0.3	<u>-3.1</u> -2.0	11.8	15.3	0.1	-2.5	1.1
16	10.9	15.7	-0.3	-2.2	11.2	15.8	-0.2	-2.0	10.7	14.9	-0.3		10.9	14.8	-0.9	-2.6	0.3
17	10.9	13.7	0.0	-3.5	10.8	13.6	-0.2	-3.1	10.7	13.4	0.1	-3.1	10.5 10.9	15.5 13.9	-0.4	-3.8	0.5
18	11.0	15.0	0.0	-2.6	11.0	15.2	0.2	-2.6	10.8	15.4	0.1	-3.3	10.9	15.9	0.4	-3.0	0.1
19	10.9	15.2	-0.1	-3.2	10.5	14.8	-0.5	-3.7	10.5	15.2	-0.4	-4.2	10.9	15.2	-0.2	-3.0	0.1
20	11.4	15.5	0.5	-2.8	11.2	15.3	0.7	-2.9	10.5	15.4	0.6	-2.8	11.1	15.2	0.4	-4.0	0.4
21	10.6	14.2	-0.8	-2.0	10.5	14.1	-0.7	-3.7	10.1	13.8	-1.0	-2.0	10.2	14.0	-0.9	-4.3	0.5
22	11.1	14.7	0.5	-3.1	11.1	14.7	0.6	-3.2	11.0	14.9	0.9	-3.3	11.1	15.0	0.9	-3.5	0.5
7	11.1	14.3	0.0	-3.0	11.2	14.3	0.0	-2.9	11.4	14.9	0.4	-2.4	11.1	14.6	0.0	-3.8	0.3
8	11.3	14.9	0.2	-2.8	11.5	15.0	0.3	-2.6	11.1	15.0	-0.3	-2.8	11.1	14.9	0.0	-3.4	0.3
9	10.3	14.0	-1.0	-4.5	11.4	15.1	-0.1	-4.0	11.6	15.7	0.5	-3.4	11.5	15.6	0.4	-4.2	1.3
10	11.7	15,1	1.4	-3.0	12.3	15.6	0.9	-2.5	11.8	15.5	0.2	-2.9	11.6	15.3	0.1	-3.8	0.7
11	11.9	15.2	0.2	-3.2	12.0	15.2	-0.3	-3.2	11.8	15.4	0.2	-2.9	11.7	15.3	0.1	-3.8	0.3
12	11.6	15.0	-0.3	-3.7	11.8	15.1	-0.2	-3.3	11.6	15.2	-0.2	-3.3	11.5	15.2	-0.2	-4.1	0.3
13	11.4	15.2	-0.2	-3.7	11.5	15.2	-0.3	-3.8	11.0	15.0	-0.6	-4.0	11.1	15.2	-0.4	-4.5	0.5
23	11.3	14.7	-0.1	-4.0	11.7	15.0	0.2	-3.5	11.3	14.9	0.3	-3.4	11.1	14.8	0.0	-4.5	0.6
24*1			F				1			<u> </u>					1	†	<u> </u>
25	11.4	15.1	0.1	-2.5	11.7	15.3	0.0	-2.2	11.2	15,1	-0.1	-2.7	11.1	15.0	0.0	-3.3	0.6
26	11.5	15.5	0.1	-3.2	11.4	15.3	-0.3	-3.6	11.1	15.4	-0.1	-3.8	11.1	15.4	0.0	-4.2	0.4
27	11.3	14.3	-0.2	-3.8	11.4	14.2	0.0	-3.8	11.0	14.2	-0.1	-4.2	11.2	14.4	0.1	-4.5	0.4
28	11.6	15.2	0.3	-3.9	11.9	15.4	0.5	-3.6	11.8	15.7	0.8	-3.7	11.6	15.4	0.4	-4.3	0.3
29	11.7	15.1	0.1	-3.6	11.9	15.1	0.0	-3.2	11.7	15.3	-0.1	-3.3	11.6	15.3	0.0	-3.9	0.3
30	11.9	15.2	0.2	-3.5	12.0	15.2	0.1	-3.4	11.5	15.2	-0.2	-3.7	11.6	15.3	0.0	-4.3	0.5
31	11.7	14.7	-0.2	-3.4	11.5	14.4	-0.5	-3.8	11.5	14.8	0.0	-3.5	11.5	14.8	-0.1	-4.1	0.2
32	11.8	15.1	0.1	-3.9	11.7	14.8	0.2	-4.1	11.5	15.0	0.0	-4.1	11.6	15.2	0.1	-4.5	0.3

Test	Poin	t #6	i

(comcast

# 901 N. Kemper St. 24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057(

Equipment Used: Date: 08/19/06

Run	1				2				3								
	Time: 00	0:25:06			Time: 0	5:22:18			Time: 1	2:39:48			Time: 1	8:25:19			_
Temp	75				74				80				85				
Chan	_Vid		Adjont		Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	24 HR
33	12.3	15.4	0.5	-2.9	12.3	15.3	0.6	-3.1	12.0	15.3	0,5	-3.3	12.0	15.4	0.4	-3.8	0.3
34	12.1	15.4	-0.2	-3.8	12.2	15.4	-0.1	-3.7	11.9	15.4	-0.1	-4.0	11.8	15.3	-0.2	-4.6	0.4
35	12.3	15.6	0.2	-3.6	12.2	15.5	0.0	-3.5	12.1	15.8	0.2	-3.4	11.9	15.6	0,1	-4.2	0.4
36	<u>11.5</u>	14.9	-0.8	-3.6	11.6	15.0	-0.6	-3.8	11.3	14.9	-0.8	-4.0	11.3	14.9	-0.6	-4.5	0.3
37	12.2	15.0	0.7	-3.8	12.5	15.3	0.9	-3.5	11.9	15.0	0.6	-4.0	11.9	15.0	0.6	-4.3	0.6
38	12.5	15.3	0.3	-3.8	12.5	15.1	0.0	-3.9	12.1	15.2	0.2	-4.1	12.4	15.5	0.5	-4.2	0.4
39	12.5	15.2	0.0	-3.6	12.3	15.0	-0.2	-3.7	12.1	15.1	0.0	-4.0	12.1	15.1	-0.3	_4.4	0.4
40	12.0	15.3	-0.5	-3.8	12.3	15.5	0.0	-3.5	11.9	15.6	-0.2	-3.8	11.6	15.1	-0.5	-4.7	0.7
41	12.3	15.1	0.3	-3.8	12.5	15.2	0.2	-3.6	12.1	15.4	0.2	-3.5	<u>12,1</u>	15.3	0.5	-4.2	<u>0.4</u>
42	12.6	15.1	0.3	- <u>1.9</u>	12.8	15.3	0.3	-1.8	12.4	15.3	0.3	-1.9	12.3	15.1	0.2	-2.6	0.5
43	13.4	15.8	0.8	-1.2	13.2	15.5	0.4	-1.4	13.1	15.9	0.7	-1.1	12.9	15.8	0.6	-2.2	0.5
44	13.3	_16.0	-0.1	-3.3	13.1	15.6	-0.1	-3.4	12.8	15.9	-0.3	-3.6	12.9	16.1	0.0	-4.0	0.5
45	12.6	<u>16.2</u>	-0.7	-3.3	12.8	16.6	-0.3	-2.8	12.1	15.5	-0.7	-3.6	12.3	15.6	-0.6	-3.9	0.7
46	11.8	14.5	-0.8	-4.6	11.9	14.4	-0.9	-4.4	12.5	15.3	0.4	-3.6	12.5	15.7	0.2	-4.2	0.7
47	11.4	15.5	-0.4	-4.2	11.5	15.4	-0.4	-3.9	10.9	15.7	-1.6	-4.4	10.3	14.8	-2.2	-5.4	1.2
48	12.8	15.0	1.4	3.7	13.0	15.3	1.5	-3.3	12.0	14.7	1.1	-4.5	12.4	15.1	2.1	-4.6	1.0
49	12.5	15.5	-0.3	-3.2	12.2	15.1	-0.8	-3.6	12.2	15.5	0.2	-3.4	12.4	15.6	0.0	-3.1	0.3
50	12.2	14.9	-0.3	-4.0	12.4	15.0	0.2	-3.7	12.3	15.2	0.1	-3.9	12,4	15.2	0.0	-4.0	0.2
51	13.0	14.9	0.8	-3.7	12.9	14.7	0.5	-3.9	12.5	14.5	0.2	-4.0	12.7	14.7	0.3	-4.5	0.5
52	13.5	14.9	0.5	-3.9	13.4	14.8	0.5	-4.0	13.5	15.0	1.0	-3.9	13.5	14.9	0.8	-4.2	0.1
53	13.7	15.5	0.2	-3.7	13.8	15.4	0.4	-3.5	13.5	15.4	0.0	-3.7	13.4	15.2	-0.1	-4.4	0.4
54	13.1	14.6	-0.6	-3.9	13.3	14.8	-0.5	-3.6	13.0	14.6	-0.5	-3.7	12.8	14.4	-0.6	-4.3	0.5
55	13.3	14.6	0.2	-4.1	13.2	14.4	-0.1	-4.0	12.9	14.5	-0.1	-4.3	13.2	14.8	0.4	-4.2	0.4
56	14.3	14.6	1.0	-3.4	14.4	14.7	1.2	-3.4	14.0	14.6	1.1	-3.7	14.2	14.7	1.0	-3.9	0.4
57	14.5	15,1	0.2	-3.4	14.6	15.2	0.2	-3.6	13.9	14.8	-0.1	-4.2	13.9	14.8	-0.3	-4.5	0.7
58	13.9	15.6	-0.6	-2.4	13.7	15.3	-0.9	-2.6	13.7	15.7	-0.2	-2.4	13.6	15.6	-0.3	-2.9	0.3
59	13.3	14.2	-0.6	-4.0	13.3	14.2	-0.4	-4.0	13.0	14.2	-0.7	-4.3	13.0	14.2	-0.6	-4.7	0.3
60	13.9	14.6	0.6	-4.0	14.2	14.8	0.9	-3.9	13.6	14.6	0.6	-4.3	13.9	14.9	0.9	-4.7	0.6
61	14.9	16.2	1.0	-4.1	14.4	15.5	0.2	-4.6	14.4	15.9	0.8	-4.6	14.3	15.9	0.4	-5.0	0.6
62	14.5	15.5	-0.4	-4.2	14.6	15.6	0.2	-4.0	14.2	15.5	-0.2	-4.4	14.4	15.7	0.1	-4.6	0.4
63	14.7	15.6	0.2	-3.6	14.5	15.4	-0.1	-3.7	14.4	15.6	0.2	-3.6	14.4	15.6	0.0	-4.1	0.3
64	14.3	15.1	-0.4	-4.0	14.0	14.6	-0.5	-4.5	14.1	15.1	-0.3	-4.2	13.8	14.7	-0.6	-5.0	0.5
65	15.1	15.3	0.8	-3.9	14.8	15.0	0.8	-3.9	14.7	15.2	0.6	-3.8	14.7	15.3	0.9	-4.4	0.4
66	15.1	15.7	0.0	-3.8	15.0	15.4	0.2	-4.0	14.6	15.5	-0.1	-4.2	14.6	15.5	-0.1	-4.8	0.5
67	15.6	15.6	0.5	-3.0	15.8	15.7	0.8	-2.7	15.4	15.8	0.8	-2.8	15.4	15.7	0.8	-3.7	0.4
68	15.1	14.8	-0.5	-2.9	15.1	14.8	-0.7	-2.9	14.7	14.7	-0.7	-3.2	14.7	14.6	-0.7	-4.1	0.4
69	15.5	15.0	0.4	-3.2	15.6	15.0	0.5	-3.0	15.3	15.3	0.6	-3.2	15.5	15.4	0.8	-3.8	0.3
70	16.2	15.4	0.7	-2.7	16.3	15.5	0.7	-2.7	15.7	15.4	0.4	-3.3	15.7	15.3	0.2	-3.8	0.6
71	15.2	14.7	-1.0	-4.1	15.3	14.7	-1.0	-3.9	14.8	14.5	-0.9	-4.3	14.8	14.4	-0.9	-4.5	0.5
72	13.6	15.7	-1.6	-5.5	13.6	15.6	<u> </u>	-4.6	13.3	15.8	-1.5	-5.3	13.2	15.6	-1.6	-5.2	0.4

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## Comcast

# 901 N. Kemper St. 24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 4340571

Equipment Used:

	Equipr	nent Us	sed:	100' d	rop, Wa	avetek	SDA-50	00 Sig	nal Lev	el Mete	r S/N 4	340571		Date: (	08/19/0	6	
Run	1				2				3				4				
	Time: 0	0:25:06			Time: 0	6:22:18			Time: 1	2:39:48			Time: 1	8:25:19			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
73	<u>15.5</u>	14.9	1.9	-3.7	15.6	14.9	2.0	-3.4	15.1	14.9	1.8	-3.9	15.2	14.9	2.0	-3.5	0.5
74	15.2	14.9	-0.3	-4.2	15.3	15.1	-0.3	-4.0	14.8	15.0	-0.3	-4.5	14.9	15.0	-0.3	-4.3	0.5
75*1																	
76	15.3	15.2	0.1	-3.3	15.5	15.3	0.2	-3.2	14.9	15.1	0.1	-3.9	14.9	15.1	0.0	-3.9	0.6
77	14.8	15.8	-0.5	-3.3	15.0	16.0	-0.5	-3.0	14.3	15.8	-0.6	-3.6	14.5	15.8	-0.4	-3.8	0.7
															<u> </u>	0.0	- 0.1
Min Value	9.8	12.4	-1.6	-5.5	9.6	12.2	-1.7	-4.6	9.6	12.4	-1.6	-5.3	9.4	12.4	-2.2	-5.4	0.1
Max Value	16.2	16.7	1.9	-1.2	16.3	16.6	2.0	-1.4	15.7	16.2	1.8	-1.1	15.7	16.1	2.1	-1.3	1.3

Notes:

\*1 - Channel removed from Analog line-up

# Comcast.

**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. **Contract of the end** All of Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

# Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

## Comeast

## 528 Bellvue PI. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P \$591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

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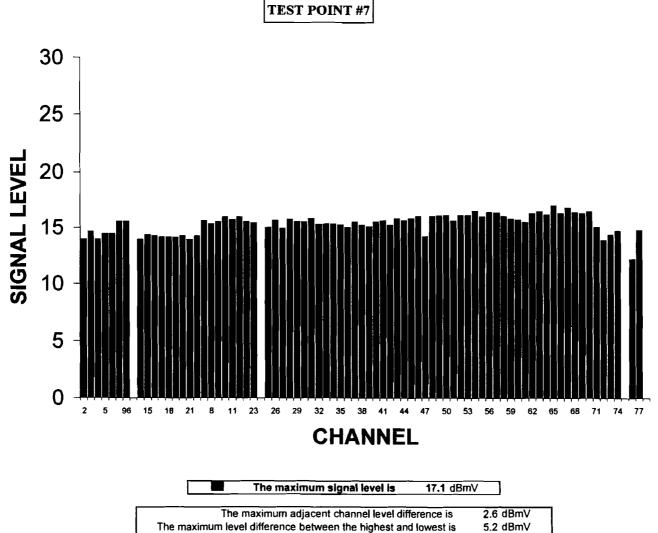
	Date: 08/3	0/06	Time: 2:44	pm	Temp: 75					
		FREQ. RSP	HUM%	CSO	<u>CTB</u>	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	0.9	1.0	68.3	63.7	50.0	4.5000			
	95	1.6	0.8	68.7	69.0	52.2	4.5000			
	21	1.2	0.9	70.8	67.5	50.2	4.5001			
	8	1.7	0.8	70.7	70.0	51.5	4.5001			
	28	1.4	0.8	71.0	67.3	50.7	4.5000			
	32	0.8	0.9	72.0	69.7	50.3	4.5001			
	47	1.1	0.9	66.8	66.0	49.8	4.5000			
	58	0.9	0.9	70.6	64.9	50.8	4.5000			
	72	1.0	0.9	68.4	64.3	48.8	4.5000			
Minimum	linimum values: 0.8		0.8	66.8	63.7	48.8	4.5000			
Maximum	values:	1.7	1.0	72.0	70.0	52.2	4.5001			



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The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum six month variance is 4.5 dBmV

							<u> </u>	'est P	oi <b>n</b> t #	7							
	(Cor	nca	st					528 Be	llvue Pl								
	<b>~</b>								vel Vari							_	
	Equipn	nent Us	sed:	_100' d	rop, Wa	vetek	SDA-50	00 Sig		el Mete	r S/N 4	340571	<u> </u>	Date: (	0 <u>8/1</u> 9/0	6	
Run	1 	4.00.45			2				3	<u> </u>			4				
Tama	<u>Time: 0</u> 75	1:03:45			Time: 0 74	6:55:38				3:20:29				9:09:04			
Temp			A	0.141			A	0.1411	80			0.04	85		TA it a	0.00	6
Chan	Vid Lvf	Aud	Adjcnt Diff	6 Mth Diff	Viđ Lvl	Aud Diff	Adjcnt Diff	6 Mith Diff	Vid Lvl	Aud Diff	Adjcnt Diff	Diff	Viđ Lvl	Aud Diff	Adjont Diff	6 Mth Diff	24 HR Vid Diff
2	14.0	12.6		0.2	14.3	12.9		0.5	13.6	12.5		-0.3	13.6	12.3		<u>-0.7</u>	0.7
3	14.7	15.3	0.7	0.2	14.6	15.1	0.3	0.2	14.3	15.1	0.7	-0.5	14.3	15.2	0.7	-0.6	0.4
4	14.0	14.6	-0.7	-1.6	14.9	15.5	0.3	0.2	14.2	15.2	-0.1	-0.6	15.3	16.2	1.0	-0.1	1.3
5	14.5	14.5	0.5	0.8	15.4	15.2	0.5	2.5	14.9	15.0	0.7	0.2	14.9	15.0	-0.4	0.6	0.9
6	14.5	15.3	0.0	0.2	14.6	15.4	-0.8	1.6	14.2	15.2	-0.7	-0.3	13.9	14.8	-1.0	-0.6	0.7
95	15.6	14.7	1.1	1.8	15.7	14.8	1.1	4.5	15.2	14.5	1.0	1.1	15.3	14.6	1.4	1.2	0.5
96	15.6	15.2	0.0	1.1	15.5	15.0	-0.2	1.5	15.4	15.2	0.2	0.9	15.4	15.2	0.1	0.8	0.2
99*1				_	_												
14	14.0	15.7	-1.6	-0.6	14.5	16.2	-1.0	0.3	14.3	16.2	-1.1	-0.2	15.0	17.0	-0.4	0.4	1.0
15	14.4	15.0	0.4	0.8	14.3	14.9	-0.2	1.1	14.3	15.1	0.0	0.7	14.3	14.9	-0.7	0.2	0.1
16	14.3	15.9	-0.1	-0.3	14.0	15.5	-0.3	-0.4	14.1	15.9	-0.2	-0.5	14.2	15.8	-0.1	-0.7	0.3
17	14.2	13.7	-0.1	-0.2	14.4	13.9	0.4	0.0	14.1	13.8	0.0	-0.5	14.1	13.8	-0.1	-0.7	0.3
18	14.2	15.0	0.0	0.5	14.1	14.8	-0.3	0.7	13.9	15.0	-0.2	0.0	<u>14.1</u>	15.1	0.0	0.2	0.3
19	14.2	15.1	0.0	-0.6	14.4	15.1	0.3	0.0	14.0	15.2	0.1	-0.7	14.1	15.2	0.0	-0.9	0.4
20	14.3	14.6	0.1	0.2	14.4	14.7	0.0	0.6	13.9	14.5	-0.1	-0.4	14.1	14.7	0.0	-0.3	0.5
21	14.0	14.1	-0.3	-0.8	14.4	14.2	0.0	0.1	13.9	14.3	0.0	-1.0	13.8	14.1	-0.3	-1.3	0.6
22	14.3	14.5	0,3	-0.2	14.5	14.5	0.1	0.4	14.4	14.9	0.5	-0.4	14.5	14.9	0.7	-0.4	0.2
7	<u>15.7</u>	15.0	1.4	0,8	15.0	14.2	0.5	0.7	13.9	13.6	-0.5	-0.7	14.9	14.5	0.4	-0.4	1.8
8	15.4	15.5	-0.3	0.6	15.4	15.2	0.4	1.0	14.8	15.1	0.9	-0.3	14.7	15.1	-0.2	-0.6	0.7
9	15.6	15.2	0.2	-0.2	14.1	13.6	-1.3	-0.9	14.3	14.3	-0.5	-2.8	15.5	15.6	0.8	-1.6	1.5
10	16.0	15.5	0.4	0.4	16.2	15.6	2.1	0.8	15.6	15.4	1.3	-0.1	15.6	15.5	0.1	-0.3	0.6
11	15.8 16.0	15.2 15.2	-0.2 0.2	0.5 0.7	15.8 15.9	14.9 14.9	-0.4 0.1	0.6 0.6	15.5 15.5	15.2 15.1	<u>-0.1</u> 0.0	-0.2 -0.1	<u>15.4</u> 15.3	15.1 14.9	-0.2 -0.1	<u>-0.5</u> -0.7	0.4
13	15.6	15.2	-0.4	-0.1	15.9	14.9	0.1	0.6	15.5	15.1	-0.5	-0.1	15.3	14.9	-0.1	-0.7	0.7
23	15.0	15.4	-0.4	-0.1	15.9	15.5	-0.6	-0.4	15.0	15.2	0.2	-0.9	14.8	15.2	-0.2	-0.9	0.9
24*1	13.5	13.1	-0.1	-0.4	-13.3	14.0	-0.0	-0.4	-10.2	10.1	0.2	-0.5		14.7	-0.5	-1.5	0.1
25	15.1	14.8	-0.4	0.7	15.3	14.9	0.0	1.2	14.8	14.9	-0.4	0.2	14.5	14.7	-0.3	-0.2	0.8
26	15.7	15.9	0.6	-0.1	15.7	15.6	0.4	0.0	15.2	15.7	0.4	-1.0	15.3	15.9	0.8	-0.9	0.5
27	15.0	14.0	-0.7	-0.4	15.1	14.0	-0.6	0.4	14.5	13.8	-0.7	-1.1	14.6	13.9	-0.7	-1.2	0.5
28	15.8	15.8	0.8	0.0	15.8	15.6	0.7	0.4	15.0	15.4	0.5	-1.0	15.2	15.7	0.6	-0.9	0.8
29	15.6	15.7	-0.2	0.3	15.5	15.3	-0.3	0.5	15.2	15.6	0.2	-0.5	15.3	15,7	0.0	-0.3	0.4
30	15.6	15.3	0.0	0.2	15.7	15.3	0.2	0.6	14.6	14.5	-0.6	-0.9	15.0	15.0	-0.3	-0.6	1.1
31	15.9	15.4	0.3	0.2	16.0	15.2	0.3	0.5	15.5	15.3	0.9	-0.4	15.6	15.4	0.6	-0.5	0.5
32	15.4	15.2	-0.5	-0.4	15.7	15.3	-0.3	0.3	15.1	15.2	-0.4	-0.7	14.8	14.9	-0.8	-1.3	0.9

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							T	'est P	oint #	7							
	(Cor	nca	st					528 Be	livue Pi								
	Q								vel Vari								
	Equipn	nent Us	sed:	100' d	rop, Wa	vetek	SDA-50	00 Sig	nal Leve	el Mete	r S/N 4	340571		Date: 0	08/19/0	6	
Run	1				2				3				4				
	Time: 0	1:03:45			Time: 0	6:55:38			Time: 1	3:20:29				9:09:04			
Temp	75				74			:	80				85				
Chan	Vid	Aud	Adjcnt		Vid	Aud	Adjont		Vid	Aud			Vid	Aud		6 Mth	
33	15.4	15.2	0.0	0.4	15.6	15.3	-0.1	0.7	15.1	15.3	0.0	-0.3	15.1	15.2	0.3	-0.7	0.5
34	15.4	15.6	0.0	-0.5	15.6	15.5	0.0	-0.1	15.1	15.5	0.0	-1.0	15.1	15.7	0.0	-1.1	0.5
35	15.3	15.0	-0.1	-0.1	15.5	14.9	-0.1	0.4	14.9	14.9	-0.2	-0.7	15.0	14.9	-0.1	-0.7	0.6
36	15.1	15.3	-0.2	-0.2	15.3	15.4	-0.2	0.0	14.6	15.2	-0.3	-1.2	14.7	15.3	-0.3	-1.2	0.7
37	15.6	15.7	0.5	0.0	15.7	15.6	0.4	0.2	15.2	15.7	0.6	-0.8	15.2	15.6	0.5	-0.8	0.5
38 39	15.3 15.2	15.3	-0.3 -0.1	-0.3 -0.6	15.6 15.4	15.5 15.0	-0.1	0.1	14.9 15.1	15.3 15.0	-0.3	-1.1 -1.0	<u>15.1</u> 14.9	15.5 14.8	<u>-0.1</u> -0.2	-1.1	0.7 0.5
40	15.2	14.8 15.8	-0.1	-0.6	15.4	15.0	-0.2	0.0	15.1	15.0	0.2	-0.5	14.9	14.8	0.7	-0.6	0.5
40	15.8	15.0	0.4	0.0	15.6	15.7	0.2	0.1	15.5	16.1	0.4	0.0	15.6	15.9	0.7	-0.0	0.1
42	15.3	15.5	-0.4	1.3	15.7	15.7	0.0	2.0	15.0	15.6	-0.7	1.0	14.6	15.3	-1.0	0.6	1.1
43	15.9	16.0	0.6	2.0	15.7	15.5	0.0	1.9	15.3	15.6	0.3	1.0	15.3	15.6	0.7	1.0	0.6
44	15.7	15.2	-0.2	-0.1	15.9	15.3	0.2	0.3	15.2	15.0	-0.1	-0.8	15.3	15.1	0.0	-1.0	0.0
45	15.9	15.9	0.2	-0.1	16.0	15.8	0.1	0.0	15.6	15.9	0.4	-0.5	15.7	16.0	0.4	-0.7	0.4
46	16.1	15.6	0.2	-0.2	16.3	15.7	0.3	0.0	15.9	15.7	0.3	-0.5	15.7	15.4	0.0	-0.8	0.6
47	14.3	15.3	-1.8	-0.4	14.5	15.4	-1.8	0.0	13.9	15.1	-2.0	-0.7	13.9	15.1	-1.8	-1.2	0.6
48	16.1	15.3	1.8	-0.3	16.2	15.2	1.7	-0.3	16.0	15.4	2.1	-0.7	15.8	15.2	1.9	-0.9	0.4
49	16.2	15.6	0.1	-0.4	16.2	15.5	0.0	-0.4	15.4	15.2	-0.6	-1.6	15.6	15.4	-0.2	-1.3	0.8
50	16.2	15.8	0.0	-0.3	16.1	15.6	-0.1	-0.3	15.4	15.2	0.0	-1.2	15.7	15.5	0.1	-1.3	0.8
51	15.7	15.6	-0.5	-0.8	16.2	15.9	0.1	0.0	15.6	15.8	0.2	-0.9	15.8	15.9	0.1	-1.1	0.6
52	16.2	15.2	0.5	0.0	16.3	15.2	0.1	0.3	15.7	14.9	0.1	-0.5	15.9	15.2	0.1	-0.8	0.6
53	16.2	14.9	0.0	-0.4	16.6	15.1	0.3	0.3	16.0	15.0	0.3	-0.7	16.1	15.2	0.2	-1.1	0.6
_ 54	16.6	15.6	0.4	-0.2	16.6	15.3	0.0	-0.3	16.4	15.6	0.4	-0.6	16.4	15.6	0.3	-0.9	0.2
55	16.1	15.2	-0.5	-0.5	16.3	15.4	-0.3	-0.5	15.9	15.3	-0.5	-1.0	15.9	15.3	-0.5	-1.2	0.4
56	16.5	15.1	0.4	-0.1	16.5	14.9	0.2	-0.1	16.2	15.1	0.3	-0.7	16.1	15.0	0.2	-0.9	0.4
57	16.5	15.0	0.0	-0.7	16.8	15.1	0.3	-0.3	16.4	15.1	0.2	-1.2	16.2	14.9	0.1	-1.3	0.6
58	16.1	15.3	-0.4	0.8	16.4	15.6	-0.4	1.3	15.9	15.4	-0.5	0.3	15.9	15.5	-0.3	0.4	0.5
59	15.9	15.3	-0.2	-0.9	15.9	15.1	-0.5	-0.6	15.6	15.3	-0.3	-1.2	15.5	15.3	-0.4	-1.6	0.4
60	15.8	15.7	-0.1	-1.1	16.0	15.8	0.1	-0.9	15.6	15.7	0.0	-1.4	15.6	15.8	0.1	-1.8	0.4
61	15.6	15.4	-0.2	-1.3	15.8	15.6	-0.2	-1.0	15.4	15.4	-0.2	-1.5	15.3	15.4	-0.3	-2.0	0.5
62	16.4	16.4	0.8	-0.8	16.5	16.2	0,7	-0.7	16.1	16.3	0.7	-1.4	16.2	16.4	0.9	-1.5	0.4
63	16.6	15.8	0.2	-0.4	16.6	15.7	0.1	-0.2	16.2	15.7	0.1	-1.2	16.5	16.0	0.3	-0.6	0.4
64	16.3	15.2	-0.3	-1.1	16.4	15.3	-0.2	-1.0	15.9	15.2	-0.3	-1.8	15.9	15.1	-0.6	-1.6	0.5
65 66	17.1	16.2	0.8	-0.9 -1.3	16.9	15.8	0.5	-1.1	16.4	15.8	0.5	-1.8	16.4	15.8	0.5	-1.5	0.7
67	16.4 16.9	15.8 15.5	-0.7	-1.3	16.5 17.0	15.8 15.5	-0.4	<u>-1.1</u> -0.1	16.1 16.5	15.8 15.6	-0.3	<u>-1.6</u> -0.9	<u>15.8</u> 16.5	15.6 15.6	-0.6 0.7	-1.4 -0.3	0.7
68	16.9	15.5	-0.4	-0.3	17.0	15.3	-0.5	-0.1	16.0	15.6	-0.5	-0.9	15.9	15.6	-0.6	-0.3	0.5
69	16.5	15.0	-0.4	-0.6	16.5	15.3	0.1	-0.7	16.0	15.3	0.5	-1.0	16.1	15.5	0.0	-0.9	0.5
70	16.6	15.9	0.2	0.1	16.6	15.2	0.0	0.1	16.1	15.7	0.0	-0.3	16.1	15.7	0.2	0.0	0.5
70	15.2	15.5	-1.4	0.1	15.3	15.3	-1.3	0.4	15.4	15.3	-0.7	0.8	15.1	15.1	-1.0	-1.0	0.3
72	14.0	16.1	-1.2	0.0	14.1	16.5	-1.2	0.4	13.9	15.7	-1.5	0.0	13.7	15.7	-1.4	0.0	0.3

(comcast

528 Bellvue Pl. 24 Hour Level Variation

Date: 08/19/06

Vid Aud Adjcnt 6 Mth 24 HR

1.4

-1.2

1.0

1.8

.

4

15.1

Time: 19:09:04 85

14.7

	Equipn	nent Us	sed:	100' d	rop, Wa	ave <u>tek</u> :	SDA-50	00 Sigi	nal Lev	el Mete	r S/N 43	340571	
Run	1	_			2	_	_		3				ſ
	Time: 0	1:03:45			Time: 0	6:55:38			Time: 1	3:20:29			ľ
Temp	75				74				80				Ĺ
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	ſ
73	14.5	14.6	0.5	0.0	14.1	14.6	0.0	1.7	14.9	14.6	1.0	0.7	ſ
74	14.8	16.6	0.3	0.9	13.6	15.6	-0.5	0.5	15.4	16.6	0.5	0.5	Ì
												_	л

16.3 -2.1 0.5 15.3 0.2 75\*1 -2.5 -2.6 13.3 16.1 -2.0 -2.5 2.6 12.3 12.7 -2.5 14.9 13.7 1.3 0.8 12.9 16.1 76 -1.4 77 14.9 14.1 2.3 11.3 15.1 -1.6 -2.7 12.0 16.0 -1.3 -3.0 4.9 2.6 0.8 16.2 14.9 1.3 78\*1 Min Value 12.3 12.6 11.3 12.5 -2.5 -2.8 12.0 12.3 -2.0 -3.0 0.1 -2.5 -1.6 13.6 12.9 -1.8 -1.1 Max Value 17.1 16.6 2.6 2.0 17.0 16.5 2.1 16.5 16.6 2.1 1.1 16.5 17.0 1.9 4.5 1.2 4.9

Notes:

\*1 - Channel removed from Analog line-up

# (comcast.

**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. All of Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

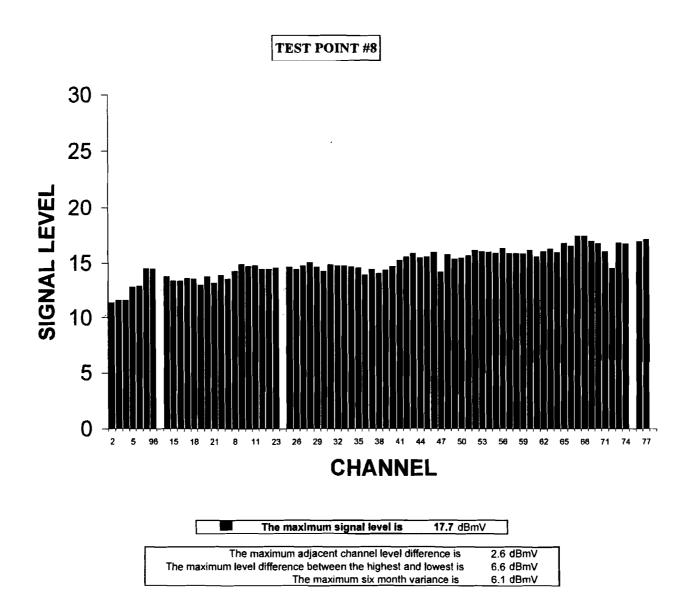
# Cornectst 5109 Gardner Dr. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

	Date: 08/3	0/06	Time: 4:40	pm		Temp: 75	
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max
	2	0.5	1.2	70.2	66.0	49.4	4.5000
	95	1.5	0.8	75.1	66.3	52.4	4.5000
	21	1.0	1.0	75.3	78.7	51.2	4.5001
	8	1.4	0.7	72.4	69.2	51.4	4.5001
	28	1.4	0.8	76.1	65.6	50.4	4.5000
	32	1.3	0.8	69.6	67.6	50.4	4.5001
	47	1.1	0.8	72.0	66.1	50.3	4.5000
	58	0.9	0.9	67.4	66.8	50.9	4.5000
	72	1.0	1.1	70.6	64.5	47.8	4.5000
Minimum v	/alues:	0.5	0.7	67.4	64.5	47.8	4,5000
Maximum	values:	1.5	1.2	76.1	78.7	52.4	4.5001



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							T	est P	oint #	8							
	(Cor	nca	st.						Irdner D		-						
	-								vel Vari							_	
	Equip	nent Us	sed:	100 <sup>.</sup> d	rop, Wa	ivetek	SDA-50	00 Sig		el Mete	r S/N 4	340571		Date: (	08/19/0	6	
Run	1	4.00.54			2				3				4				
Temp	<u>Time: 0</u> 75	1:32:54			Time: 0	7:20:13			Time: 1 80	3:48:23			Time: 1 85	9:38:51			
	Vid	A	0 di	C MIL		A	A	C 1 44		A		0.444					
Chan	Lvi	Aud Diff	Adjcnt Diff	6 Mth Diff	Vid Lvl	Aud	Diff	6 Mth Diff	Vid Lvl	Aud Diff	Diff	6 Mth Diff	Vid Lvt	Aud Diff	Adjcnt Diff	6 Mth Diff	24 HR Vid Diff
2	11.4	12.4		2.3	11.9	12.6		2.8	11.4	12.5		2.6	11.5	12.4		2.6	0.5
3	11.6	14.9	0.2	3.0	11.9	14.8	0.0	3.5	11.6	14.9	0.2	3.1	11.5	14.8	0.0	3.1	0.5
4	11.6	14.8	0.0	4.0	11.1	13.9	-0.8	3.4	11.8	14.9	0.2	4.3	11.7	14.7	0.0	4.5	0.4
5	12.8	14.4	1.2	4.3	12.2	13.5	1.1	3.9	12.9	14.6	1.1	4.7	12.4	14.0	0.7	4.3	0.7
6	12.9	14.9	0.1	4.0	13.1	15.0	0.9	4.3	12.7	14.9	-0.2	4.1	12.9	14.9	0.5	4.2	0.4
95	14.5	14.5	1.6	4.1	14.6	14.5	1.5	4.2	14.5	14.7	1.8	4.2	14.4	14.4	1.5	4.2	0.2
96	14.5	15.0	0.0	3.6	14.8	14.8	0.2	3.9	14.7	15.2	0.2	4.1	14.4	14.8	0.0	3.6	0.4
99*1																	
14	13.8	16.6	-0.7	3.9	13.7	16.5	-1.1	3.9	13.0	16.1	-1.7	3.3	13.8	16.6	-0.6	4.2	0.8
15	13.4	14.8	-0.4	4.5	13.5	14.8	-0.2	4.6	13.1	14.7	0.1	4.3	13.4	14.7	-0.4	4.6	0.4
16	13.4	16.6	0.0	4.0	13.5	15.8	0.0	4.4	13.1	15.5	0.0	6.0	13.4	15.6	0.0	4.0	0.4
17	13.6	13.5	0.2	3.4	13.7	13.6	0.2	3.5	13.3	13.4	0.2	3.3	13.4	13.4	0.0	3.3	0.4
18	13.6	15.1	0.0	4.1	13.6	14.9	<u>-0.1</u>	3.9	13.6	15.2	0.3	4.2	14.0	15.5	0.6	4.7	0.4
19	13.0	14.7	-0.6	2.8	13.7	15.2	0.1	5.7	13.5	15.3	-0.1	3.5	13.7	15.4	-0.3	3.7	0.7
20	13.8	14.9	0.8	3.9	14.1	15.2	0.4	4.1	13.6	14.9	0.1	3.9	13.9	15.1	0.2	4.3	0.5
21	13.2	13.9	-0.6	2.9	13.4	14.0	-0.7	3.0	13.1	14.2	-0.5	2.9	13.3	14.2	-0.6	3.3	0.3
22	13.9	14.9	0.7	3.2	13.9	14.9	0.5	3.2	13.7	<u>15.1</u>	0.6	3.2	13.5	14.6	0.2	3.0	0.4
7	13.6	13.8	-0.3	3.4	14.1	14.4	0.2	3.8	13.7	14.5	0.0	3.8	14.4	15.0	0.9	4.5	0.8
8	14.3	14.9	0.7	4.1	14.3	14.8	0.2	4.2	13.9	15.1	0.2	4.1	14.0	14.9	-0.4	4.0	0.4
9	14.9	15.6	0.6	4.3	14.7	15.3	0.4	4.2	14.3	15.4	0.4	4.2	14.0	15.1	0.0	3.9	0.9
10	14.7 14.8	15.2 15.2	-0.2 0.1	3.8 3.2	14.9 14.7	15.4 15.1	0.2	4.1 3.2	14.3 14.6	15.3	0.0	3.5	14.4	15.3	0.4	3.8	0.6
12	14.8	15.2	-0.3	3.2	14.7	15.1	-0.2	<u>3.2</u> 2.7	14.6	15.7 14.5	0.3	3.3	14.5 14.1	15.5 14.6	-0.4	3.3	0.3
	14.5	14.5	-0.3	2.6	14.4	14.6	-0.3	2.7	13.8	14.5 14.9	-0.8	2.5 2.1	14.1	14.6	-0.4	3.0 2.5	
23	14.5	15.3	0.0	3.8	14.4	15.2	0.0	<u>2.5</u> 4.1	13.6	14.9	-0.2	3.7	14.1	15.3	0.0	4.1	0.9
24*1	14.0	14.5	0.1	3.0	14.0	15.0	0.4	-4.1	14.3	15.2	0.7	3.1	14.5	15.5	0.4	4.1	0,5
25	14.7	15.1	0.1	4.8	14.5	14.9	-0.3	5.5	13.9	14.9	-0.4	4.5	14,2	15.1	-0.3	4.6	0.8
26	14.5	15.1	-0.2	3.5	14.6	15.1	0.1	3.7	14.3	15.5	0.4	3.6	14.1	15.2	-0.1	3.3	0.5
27	14.8	14.4	0.3	3.7	15.1	14.9	0.5	3.9	14.0	14.3	-0.3	3.3	14.3	14.4	0.2	3.5	1.1
28	15.1	16.1	0.3	3.4	14.9	15.8	-0.2	3.2	14.5	16.0	0.5	3.1	14.5	15.9	0.2	3.2	0.6
29	14,7	15.4	-0.4	3.8	14.8	15.4	-0.1	4.0	14.3	15.6	-0.2	3.6	14.5	15.6	0.0	4.1	0.5
30	14.3	14.6	-0.4	3.5	14.4	14.7	-0.4	3.4	13.8	14.5	-0.5	3.3	13.9	14.5	-0.6	3.3	0.6
31	14.9	14.9	0.6	3.6	15.0	14.9	0.6	3.8	14.6	15.1	0.8	3.6	14.7	15.1	0.8	3.7	0.4
32	14.8	15.1	-0.1	3.3	14.5	14.8	-0.5	2.9	14.2	15.0	-0.4	2.8	14.3	15.0	-0.4	2.8	0.6

							T	est P	oint #	8							
	(Cor	nca	st.				5	109 Ga	rdner D	)r.	-						
	<b>~</b>								vel Vari								
	Equipn	nent Us	ed:	<u>100' d</u>	rop, Wa	vetek	SDA-50	00 Sig	nal Leve	el Mete	<u>r S/N 4</u>	<u>34057(</u>		Date: (	<u>08/19/0</u>	6	
Run			_		2				3				4				
	Time: 0	1:32:54			Time: 0	7:20:13			<u>Time: 1</u>	3:48:23			Time: 1	9:38:51			
Temp	75				74				80	_	A 1/ -	0.444	85				
<u>Chan</u> 33	Vid 14.8	Aud 15.2	Adjcnt 0.0	<u>6 Mitn</u> 3.6	Vid 15.0	15.3	Adjcnt 0.5	6 Mith 4.0	_ <u>Vid</u> 14.3	Aud 15.1	Adjcnt 0.1	6 Min 3.5	Vid 14,4	Aud 15.1	0.1	<u>6 Mth</u> 3.5	24 HR 0.7
<u> </u>	14.0	15.2	-0.1	3.3	14.7	15.5	-0.3	3.3	14.3	15.9	0.1	3.3	14.3	15.7	-0.1	3.5	0.7
35	14.6	15.1	-0.1	3.0	14.4	14.8	-0.3	2.9	13.9	14.9	-0.4	2.6	14.2	15.0	-0.1	2.9	0.4
36	14.0	15.1	-0.6	2.3	13.9	15.0	-0.5	2.5	13.7	15.3	-0.2	2.8	13.9	15.3	-0.3	2.8	0.3
37	14.5	15.7	0.5	2.2	14.6	15.6	0.7	2.4	14.2	15.9	0.5	2.4	14.3	15.8	0.4	2.4	0.4
38	14.1	14.8	-0.4	2.0	14.2	14.9	-0.4	2.1	13.4	14.6	-0.8	1.9	13.8	14.8	-0.5	2.4	0.8
39	14.4	14.8	0.3	2.8	14.2	14.5	0.0	2.5	13.9	14.6	0.5	2.6	13.9	14.5	0.1	2.7	0.5
40	14.7	15.2	0.3	2.8	14.6	15.0	0.4	2.8	14.2	15.1	0.3	2.9	14.5	15.3	0.6	2.9	0.5
41	15.3	15.0	0.6	2.9	15.3	15.0	0.7	3.1	14.8	15.0	0.6	2.8	14.9	15.0	0.4	2.9	0.5
42	15.6	15.6	0.3	4.8	15.4	15.2	0.1	4.7	15.0	15.4	0.2	4.6	15.3	15,6	0.4	4.9	0.6
43	15.9	15.7	0.3	5.0	16.0	15.8	0.6	5.0	15.4	15.6	0.4	4.6	15.6	15.6	0.3	5.1	0.6
44	15.5	14.9	-0,4	3.9	15.6	15.0	-0.4	3.9	15.2	14.9	-0.2	3.7	15.7	15.3	0.1	4.3	0.5
45	15.6	15.3	0.1	3.8	15.9	15.5	0.3	4.0	15.4	15.5	0.2	3.8	15.5	15.4	-0.2	4.1	0.5
46	16.0	15.5	0.4	3.3	16.0	15.5	0.1	3.6	15.6	15.5	0.2	3.4	15.6	15.4	0.1	3.3	0.4
	14.2	15.5	-1.8	2.6	14.2	<u>15.5</u>	-1.8	2.7	13.9	15.5	-1.7	_2.7	14.1	15.6	-1.5	2.9	0.3
48	15.8	15.4	1.6	3.2	15.7	15.2	1.5	3.3	15.4	15.4	1.5	3.5	15.5	15.3	1.4	3.2	0.4
49	15.4	15.1	-0.4	2.3	15.6	15.2	-0.1	2.8	15.1	15.1	-0.3	2.5	15.3	15.2	-0.2	2.6	0.5
50	15.5	15.1	0.1	2.9	15.7	15.3	0.1	3.1	15.3	15.2	0.2	3.1	15.2	15.0	-0.1	2.8	0.5
<u>51</u> 52	15.7	<u>15.4</u> 15.1	0.2	2.7 3.0	15.8 16.3	15.3 15.2	0.1	3.0	<u>15.2</u> 15.6	<u>15.2</u> 14.9	-0.1	2.5	<u>15.6</u> 16.0	<u>15.5</u> 15.1	0.4	3.0	0.6
53	16.2 16.1	15.1	-0.1	2.8	15.9	15.2	-0.4	2.8	15.0	14.9	0.4	2.9	15.9	15.1	-0.1	3.0	0.7
<u> </u>	16.0	14.9	-0.1	3.2	16.4	14.0	0.5	3.7	15.7	15.0	0.0	3.2	15.8	14.9	-0.1	3.6	0.4
55	15.9	15.1	-0.1	2.7	15.9	15.0	-0.5	2.6	15.4	15.0	-0.3	2.6	15.5	14.9	-0.3	2.7	0.5
56	16.4	15.2	0.5	3.3	16.4	15.0	0.5	3.6	15.7	14.9	0.3	3.3	16.1	15.1	0.6	3.3	0.7
57	15.9	14.8	-0.5	2.6	16.1	14.8	-0.3	2.6	15.7	15.0	0.0	2.8	15.9	14.9	-0.2	3.4	0.4
58	15.9	15.0	0.0	4.6	15.6	14.7	-0.5	4.3	15.4	14.8	-0.3	4.7	15.5	14.7	-0.4	4.7	0.5
59	15.9	15.0	0.0	2.6	16.0	14.9	0.4	2.6	15.7	15.2	0.3	2.9	15.7	15.0	0.2	3.0	0.3
60	16.2	15.6	0.3	3.9	16.0	15.3	0.0	3.7	15.6	15.4	-0.1	3.8	15.8	15.3	0.1	3.9	0.6
61	15.6	15.3	-0.6	3.1	16.1	15.8	0.1	3.4	15.4	15.5	-0.2	3.0	15.6	15,6	-0.2	3.6	0.7
62	16.1	15.8	0.5	3.6	<u>16.</u> 0	15.7	-0.1	3,5	15.6	15.8	0.2	3.3	15.9	15.9	0.3	3.8	0.5
63	16.3	15.1	0.2	3.6	16.2	15.0	0.2	3.6	16.1	15.2	0.5	3.8	16.0	15.0	0.1	3.6	0.3
64	16.0	14.7	-0.3	3.5	15.9	14.6	-0.3	3,6	15.5	14.6	-0.6	3.5	15.8	14.7	-0.2	3,9	0.5
65	16.8	15.4	0.8	3.8	17.1	15.6	1.2	4.0	16.5	15.5	1.0	3.9	16.7	15.5	0.9	4.0	0,6
66	16.6	15.3	-0.2	3.7	16.5	15.4	-0.6	3.7	16.0	15.2	-0.5	3.4	16.2	15.2	-0.5	3.7	0.6
67	17.5	15.3	0.9	4.0	17.7	15.5	1.2	4.4	17.1	15.4	1.1	4.1	17.0	15.1	0.8	3.9	0.7
68	17.5	15.9	0.0	3.4	17.5	16.0	-0.2	3.4	16.9	15.8	-0.2	3.3	17.1	15.8	0.1	3.5	0.6
<u>69</u>	17.0	15.4	-0.5	3.6	17.0	15.5	-0.5	3.8	16.4	15.3	-0.5	3.5	16.7	15.3	-0.4	3.8	0.6
70	16.8	15.3	-0.2	3.5	16.7	15.3	-0.3	3.7	16.1	15.2	-0.3	3.2	16.6	15.5	-0.1	3.8	0.7
71	16.1	14.9	-0.7	3.8	16.0	14.8	-0.7 -1.8	3.7	15.6	14.9	-0.5	3.5	15.9	15.0	-0.7	4.0	0.5
72	14.6	15,4	-1.5	2.1	14.2	15.2	<u>-1.8</u>	1.1	13.7	15.1	-1.9	1.2	14.0	15.2	-1.9	2.5	0.9

### Comcast

5109 Gardner Dr.

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Caulman ant Line di

24 Hour Level Variation 100' dron, Wavetek SDA-5000 Signal Level Meter S/N 4340571

	Equipm	nent Us	sed:	100' d	rop, Wa	vetek S			nal Leve		r S/N 4	340571		Date: (	08/ <u>19/0</u>	<u> </u>	
Run	1				2				3				4				
l	Time: 0	1:32:54		_	Time: 0	7:20:13			Time: 1	3:48:23			Time: 1	9:38:51			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
73	16.9	14.9	2.3	4.1	16.8	14.7	2.6	4.1	16.2	14.7	2.5	4.2	16.5	14.9	2.5	4.4	0.7
74	16.8	15.1	-0.1	3.2	16.7	15.1	-0.1	3.1	16.3	15.2	0.1	3.4	16.5	<u>15</u> .1	0.0	3.5	0.5
75*1													l				
76	17.0	15.1	0.2	4.6	16.9	14.9	0.2	4.4	16.5	15.1	0.2	4.4	16.9	15.3	0.4	5.0	0.5
77	17.2	16.2	0.2	5.9	17.1	16.3	0.2	6.0	16.6	16.3	0.1	5.9	16.9	16.4	0.0	6.1	0.6
78*1												<u> </u>			<u> </u>	<u> </u>	
Min Value	11.4	12.4	-1.8	2.0	11.1	12.6	-1.8	1.7	11.4	12.5	-1.9	1.2	11.5	12.4	-1.9	2.4	0.2
Max Value	17.5	16.6	2.3	5.9	17.7	16.5	2.6	6.0	17.1	16.3	2.5	6.0	17.1	16.6	2.5	6.1	1.1

Notes:

\*1 - Channel removed from Analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. All of Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

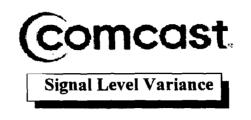
	Gomeast	
	418 Bashford Ln.	
	Alexandria, VA	
	FCC Distortion Measurements	
:	EQUIPMENT USED:	
•	H/P 8591C, S/N 3916A04384	111
	Pre-Amplifier 85905A, S/N 6093-0551	
	Comsonics Cybertec Examiner	
	CONVERTER BOX SA 8511, S/N GF505BFDN	

: ,

	Date: 08/3	0/06	Time: 2:10	pm		Temp: 75	
		FREQ. RSP	HUM%	CSO	СТВ	C/N	4.5 DIFF
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max
	2	1.1	0.9	70.5	66.1	50.0	4.5000
	95	1.8	0.7	72.7	66.6	51.8	4.5000
	21	1.2	0.8	67.6	66.0	50.0	4.5001
	8	1.5	0.7	76.9	64.9	51.2	4.5001
	28	1.6	0.7	67.6	70.1	50.2	4.5000
	32	1.2	0.7	65.4	65.3	50.0	4.5001
	47	1.0	0.7	67.7	64.0	49.6	4.5000
	58	0.9	0.7	70.0	71.8	51.3	4.5000
	72	1.3	1.3	70.7	65.5	48.0	4.5000
Minimum	values:	0.9	0.7	65.4	64.0	48.0	4.5000
Maximum	values:	1.8	1.3	76.9	71.8	51.8	4.5001

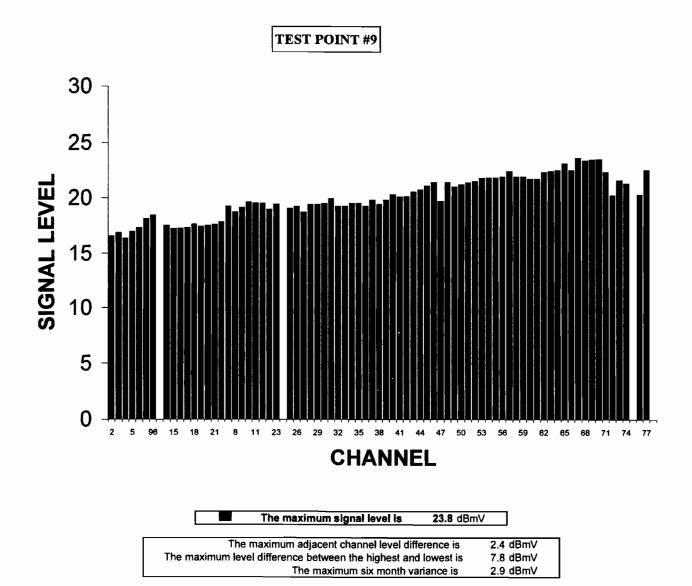
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The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							Т	'est P	oint #	9							
	Cor						24 H	lour Le	hford Lr vel Vari	ation	-						
	Equipn	nent Us	sed:	100' d	And in case of the local division of the loc	vetek	SDA-50	00 Sigi	nai Leve	el Mete	r S/N 4	34057(		Date: (	08/19/0	6	
Run					2			-	3				4			_	
	Time: 0	1:00:53			Time: 0	6:52:02			Time: 1	3:18:42			_	9:04:25			
Temp	75				74				80				85	_			
Chan	Vid	Aud	Adjont		Vid	Aud	Adjcnt		Vid	Aud	Adjent		Vid	Aud			24 HR
	LVI	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	Vid Diff
2	16.6	12.7		0.4	16.0	13.0		0.0	16.3	12.4		-0.3	16.2	12.5		-0.4	0.6
3	16.9	15.1	0.3	0.1	17.0	15.0	1.0	-0.2	16.7	14.9	0.4	-0.6	16.5	14.8	0.3	-0.7	0.5
4	16.4	14.5	-0.5	-0.9 0.8	17.1 16.7	15.1	0.1	-1.0 0.9	<u>17.5</u> 17.6	15.5 14.7	0.8	0.2	<u>16.8</u> 17.1	14.9 14.3	0.3	-0.4	<u>1.1</u> 0.9
6	17.0	14.1	0.6			13.6 15.6	-0.4	0.9	17.4	14.7	-0.2	0.2	17.3	14.3	0.3	-0.3	0.9
95	17.4	<u>15.3</u> 14.5	0.4	0.2	17.6 18.3	15.6	0.9	1.8	17.4	15.4	0.6	0.2	18.0	15.5	0.2	0.5	0.3
95	18.5	14.5	0.8	1.1	18.5	14.7	0.7	1.8	18.4	15.2	0.8	1.2	18.3	14.5	0.7	0.5	0.3
90*1	10.5	15.2	0.5	1.4	10.5	15.2	0.2	1.0	10.4	15.2	0.4	1.6	10.3	15.2	0.3	0.0	0.2
14	17.6	16.1	-0.9	0.4	18.0	16.5	-0.5	1.1	17.5	16.2	-0.9	0.0	17.8	16.5	-0.5	0.2	0.5
15	17.3	14.6	-0.3	0.4	17.4	14.6	-0.6	1.2	17.3	14.7	-0.2	0.4	17.0	14.2	-0.8	-0.2	0.4
16	17.3	15.1	0.0	-0.3	17.4	18.3	0.0	0.4	17.3	15.3	0.0	-0.5	17.3	15.3	0.3	0.2	0.1
17	17.4	13.6	0.1	-0.1	17.3	13.6	-0.1	0.1	17.1	13.4	-0.2	-0.4	17.2	13.5	-0.1	-0.7	0.3
18	17.7	15.2	0.3	0.7	17.7	15.0	0.4	1.2	17.4	14.9	0.3	0.4	17.5	15.2	0.3	0.1	0.3
19	17.5	15.1	-0.2	-0.1	17.6	15.1	-0.1	0.2	17.1	14.9	-0.3	-0.7	17.3	15.1	-0.2	-0.8	0.5
20	17.6	14.6	0.1	0.2	18.0	15.0	0.4	1.0	17.4	14.6	0.3	-0.1	17.3	14.6	0.0	-0.4	0.7
21	17.7	14.8	0.1	-0.3	17.8	14.7	-0.2	0.3	17.7	14.9	0.3	-0.5	17.4	14.6	0.1	-1.0	0.4
22	17.9	14.8	0.2	-0.1	18.0	14.9	0.2	0.5	18.0	14.9	0.3	-0.3	18.0	14.9	0.6	-0.4	0.1
7	19.3	15.3	1.4	1.3	19.0	15.0	1.0	1.5	18.4	14.6	0.4	0.5	18.9	15.0	0.9	0.5	0.9
8	18.8	15.4	-0.5	0.6	19.1	15.5	0.1	1.3	18.9	15.8	0.5	0.6	18.6	15.6	-0.3	0.2	0.5
9	19.2	15.5	0.4	0.0	19.0	15.2	-0.1	0.5	18,1	14.6	-0.8	-1.0	18.7	15.3	0.1	-0.6	1.1
10	19.7	15.9	0.5	1.3	19.7	15.7	0.7	1.4	19.4	15.7	1.3	0.5	19.2	15.7	0.5	0.2	0.5
11	19.6	15.6	-0.1	0.8	19.7	15.4	0.0	1.2	19.4	15.6	0.0	0.3	19.4	15.6	0.2	0.2	0.3
12	19.6	15.4	0.0	0.2	20.0	15.7	0.3	1.0	19.4	15.4	0.0	-0.2	18.8	14.9	-0.6	-0.3	1.2
13	19.0	15.2	-0.6	-0.2	19.4	15.5	-0.6	0.7	19.0	15.4	-0.4	-0.6	18.6	15.1	-0.2	-0.6	0.8
23	19.5	15.7	0.5	-0.2	19.2	15.1	-0.2	0.1	19.2	15.5	0.2	-0.9	19.0	15.4	0.4	-1.1	0.5
24*1						15.			10.0	45.			40.0	155			
25	19.1	15.4	-0.4	1.0	19,4	15.4	0.2	1.6	18.9	15.4	-0.3	0.4	18.8	15.3	-0.2	0.2	0.6
26	19.3	15.9	0.2	-0.1	19.3	15.6	-0.1	0.5	19.0	15.9	0.1	-0.6	18.9	15.8	0.1	-0.7	0.4
27	18.8	14.1	-0.5	-0.4	19.1	14.3	-0.2	0.5	18.5	14.1	-0.5	-1.0	18.5	14.2	-0.4	-1.1	0.6
28	19.5	15.6	0.7	0.0	19.7	15.5	0.6	0.5	19.1	15.3	0.6	-0.8	19.1	15.6	0.6	-0.9	0.6
29	19.5	15.4	0.0	0.2	19.5	15.1	-0.2	0.7	19.1	15.2	0.0	-0.4	19.0	15.3	-0.1	-0.7	0.5
30	19.6	15.3	0.1	0.1	19.7	15.4	0.2	0.7	19.2	15.2	0.1		18.7	14.7			
31	20.0	15.3	0.4	0.4	19.8	14.9 14.8	0.1	0.6	19.7 19.2	15.1	0.5	-0.2	<u>19.5</u> 19.0	<u>15.1</u> 15.1	0.8	-0.4	0.5
32	19.3	15.0	-0.7	-0.1	19.3	14,8	-0.5	0.1	19.2	15.2	-0.5	-0,7	19.0	15.1	-0.5	-0.9	0.3

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Test	Point #	¥9

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### 418 Bashford Ln. 24 Hour Level Variation

Equipment Used: 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 4340571 Date: 08/19/06 Run 2 3 4 Time: 01:00:53 Time: 06:52:02 Time: 13:16:42 Time: 19:04:25 Temp 75 74 80 85 Chan Vid Aud Adjont 6 Mth 24 HR 33 19.3 15.1 0.0 0.1 15.3 0.4 1.0 15.0 -0.1 -0.3 19.0 15.0 -0.6 0.7 19.7 19.1 0.0 -0.8 34 19.6 15.6 0.3 -0.3 19.6 15.3 -0.1 0.1 19.3 15.5 0.2 19.2 15.5 0.2 -1.2 0.4 35 15.1 19.6 15.0 0.0 0.1 19.8 0.2 1.0 19.6 15.1 0.3 -0.2 19,4 15.1 0.2 -0.6 0.4 36 19.3 15.0 -0.3 -0.3 19.4 15.0 -0.4 0.5 19.1 15.0 -0.5 -0.6 18.9 15.0 -0.5 -0.8 0.5 37 19.9 15.6 0.6 -0.1 19.9 15.3 0.5 0.6 19.6 15.4 0.5 -0.7 19.8 15.7 0.9 -0.6 0.3 38 19.9 14.9 0.5 19.4 19.5 14.7 -0.4 -0.3 0.0 19.3 14.5 -0.3 -1.0 14.9 -0.4 -0.9 0.6 39 19.9 14.6 0.4 -0.5 20.0 14.7 0.4 19.7 14.6 0.4 -0.9 19.3 14.3 -0.1 -1.7 0.7 0.1 40 20.4 15.6 0.5 0.2 20.2 15.3 0.2 0.8 20.3 15.3 0.6 -0.2 20.2 15.5 0.9 -0.4 0.2 41 20.2 15.1 -0.2 0.3 20.3 15.0 0.1 1.0 20.5 16.0 0.2 0.2 20.1 15.3 -0,1 -0.2 0.4 42 15.4 20.6 2.6 19.9 15.4 19.5 15.2 -0.6 0.4 20.2 0.0 1.6 15.6 0.3 -0.6 1.1 1.1 43 20.6 15.6 0.4 1.6 20.8 15.5 0.2 2.5 20.6 15.8 0.7 1.6 20.2 15.4 0.7 1.0 0.6 -0.5 44 20.8 15.2 0.2 -0.2 21.0 15.3 0.2 0.5 20.8 15.4 0.2 20.7 15.4 0.5 -0.5 0.3 15.7 20.9 -0.6 45 21.2 15.8 0.4 0.0 21.2 15.6 0.2 0.5 21.0 0.2 -0.4 15.8 0.2 0.3 15.9 15.6 0.3 21.7 15.7 0.4 21.3 15.6 0.3 -0.5 21.4 0.5 -0.6 0.4 46 21.5 0.1 0.5 -0.5 15.2 0.5 47 -1.7 -0.3 19.8 15.4 -1.9 0.0 19.5 15.3 -1.8 19.3 -2.1 -1.1 19.8 15.4 48 21.5 15.3 1.7 -0.2 21.5 15.2 1.7 0.0 21.5 15.4 2.0 -0.5 21.3 15.4 2.0 -1.0 0.2 -0.8 -1.0 -0.4 21.4 15.3 -0.1 0.0 21.1 15.3 -0.4 20.7 15.0 -0.6 0.7 49 21.1 15.1 -0.5 21.4 15.5 0.0 0.3 20.9 15.2 -0.2 -0.9 21.0 15.4 0.3 -0.8 0.5 50 21.3 15.4 0.2 -0.2 21.5 21.5 15.6 0,1 21.3 15.7 0.4 -0.6 21.2 15.7 0.2 -0.9 0.3 51 15.7 0.2 -0.2 0.1 14.7 21.9 14.8 0.7 21.2 14.4 -0.1 -0.6 21.3 0.1 -0.6 0.7 52 21.6 14.6 0.1 0.1 0.4 53 21.9 15.1 0.3 0.3 22.0 15.0 0.1 0.9 21.6 15.0 0.4 -0.4 21.4 14.8 0.1 -1.0 0.6 15.0 -1.0 54 22.1 14.8 21.8 15.0 0.2 -0.6 21.8 0.4 0.3 21.9 14.9 0.0 -0.3 0.1 0.0 55 21.9 14.9 0.0 -0.4 22.1 15.1 0.0 0.0 21.8 15.0 0.0 -0.8 21.7 15.0 -0.1 -1.2 0.4 56 22.0 14.8 0.1 -0.4 22.3 14.9 0.2 0.2 21.7 14.6 -0.1 -0.6 22.0 15.1 0.3 -0.8 0.6 22.5 0.1 22.2 0.5 -1.0 22.0 14.8 0.0 -1.3 0.5 57 22.5 15.0 0.5 -0.2 14.9 0.2 14.9 0.8 21.7 15.3 0.3 22.0 -0.5 0.9 22.0 15.3 -0.5 1.3 22.0 15.6 -0.2 -0.3 0.5 58 15.3 59 22.0 15.2 0.0 -0.4 21.8 14.9 -0.2 0.0 21.5 15.0 -0.5 -1.1 21.7 15.4 0.0 -1.1 0.5 22.1 15.3 21.7 15.1 0.2 -1.3 21.7 15.3 0.0 -1.8 0.4 60 21.8 15.1 -0.2 -0.8 0.3 -0.1 15.0 21.8 15.2 21.5 15.1 -0.2 -0.9 21.3 -0.4 -1.4 0.5 61 21.8 15.2 0.0 -0.6 -0.3 -0.1 62 22.4 15.9 0.6 -0.3 22.5 15.8 0.7 0.2 22.2 15.8 0.7 -0.9 22.2 16.0 0.9 -1.0 0.3 63 22.5 15.2 0.1 -0.1 22.8 15.4 0.3 0.8 22.5 15.4 0.3 -0.4 22.4 15.4 0.2 -0.4 0.4 22.5 -0.7 22.1 14.6 -0.3 -1.2 0.8 22.6 14.7 0.1 -0.3 22.9 15.0 0.1 0.9 14.9 0.0 64 23.3 15.4 0.0 23.0 0.5 -1.2 23.0 15.8 0.9 -1.1 0.3 65 23.2 15.6 0.6 -0.5 0.4 15.7 22.4 -1.5 22.3 15.5 -0.7 -1.5 0.8 15.3 -0.6 -1.2 23.1 15.8 -0.2 -0.1 15.5 -0.6 66 22.6 23.4 -0.7 23.4 15.7 -0.3 0.4 67 23.7 15.6 1.1 -0.1 23.8 15.6 0.7 0.7 15.6 1.0 1.1 23.6 15.5 23.2 15.7 -0.2 68 23.5 15.6 -0.2 -0.3 -0.2 0.4 23.3 15.8 -0.1 -0.9 -0.9 0.4 -0.7 22.8 -1.0 15.4 0.1 23.5 15.4 -0.1 1.0 22.9 15.2 -0.4 15.1 -0.4 0.8 69 23.6 I 0.1 23.6 15.9 0.0 0.4 23.5 15.8 1.1 22.9 15.4 0.0 -0.2 22.8 15.5 0.0 0.1 0.8 70 0.0 71 15.3 -1.2 0.4 22.5 15.5 -1.0 1.1 22.5 15.4 -0.4 0.7 22.3 15.3 -0.5 -0.2 0.2 22.4 20.2 72 20.3 16.1 -2.1 -0.7 20.1 16.3 -2.4 -1.5 20.3 15.8 -2.2 0.2 15.6 -2.1 1.5 0.2

### Comcast

### 418 Bashford Ln. 24 Hour Level Variation

	Equipn	nent Us	sed:	100' d	rop, Wa	avetek :	SDA-50	00 Sigi	nal Leve	el Mete	r S/N 4	34057(	_	Date: 0	08/19/0	6	
Run	1				2				3				4				
* 100	Time: 0	1:00:53			Time: 0	6:52:02			Time: 1	3:16:42		_	Time: 1	9:04:25			
Temp									80				85				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
73	21.7	14.9	1.4	0.4	21.4	15.0	1.3	0.0	22.2	14.9	1.9	1.7	22.1	14.9	1.9	1.9	0.8
74	21.4	16.1	-0.3	-1.2	20.6	15.6	-0.8	-1.5	21.9	15.9	-0.3	-1.5	21.9	15.8	-0.2	1.6	1.3
75*1																	
76	20.4	12.8	-1.0	-2.7	22.0	13.5	1.4	-1.6	20.7	16.4	-1.2	-2.9	20.9	16.2	-1.0	-2.5	1.6
77	22.6	14.2	2.2	0.3	23.7	15.3	1.7	1.1	19.0	16.0	-1.7	-1.9	19.4	16.3	-1.5	-1.8	4.7
78*1																	
Min Value	16.4	12.7	-2.1	-2.7	16.0	13.0	-2.4	-1.6	16.3	12.4	-2.2	-2.9	16.2	12.5	-2.1	-2.5	0.1
Max Value	23.7	16.1	2.2	1.6	23.8	<u>18.</u> 3	1.7	2.6	23.4	16.4	2.0	1.7	23.4	16.5	2.0	1.9	4.7

Notes:

\*1 - Channel removed from Analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

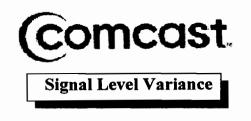
### Concast

### 5465 Colfax Ave. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED; H/P 8591C, S/Ň 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

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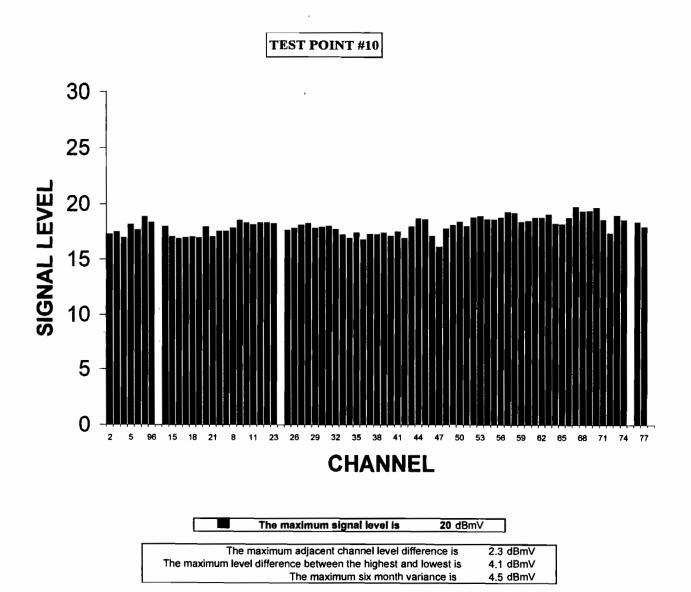
:

	Date:08/30	0/06	Time: 2:30	pm	Temp: 75				
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF		
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max		
	2	0.7	0.9	66.9	68.8	46.8	4.5000		
	95	1.7	0.7	73.5	64.2	50.0	4.5000		
	21	0.9	0.8	64.2	65.9	48.0	4.5001		
	8	1.3	0.7	72.4	64.3	48.1	4.5001		
	28	1.2	0.6	68.0	60.9	47.9	4.5000		
	32	1.2	0.6	66.4	66.2	47.8	4.5001		
	47	1.2	0.7	70.4	61.9	47.0	4.5000		
	58	1.3	0.7	65.1	65.4	47.2	4.5000		
	72	1.1	1.1	61.2	60.3	46.2	4.5000		
Minimum	values:	0.7	0.6	61.2	60.3	46.2	4.5000		
Maximum	values:	1.7	1.1	73.5	68.8	50.0	4.5001		



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



					Test Poi					0							
	(Cor	nca	st				5	465 Cc	lfax Av	e							
	~							lour Lev									
	Equipn	nent Us	sed:	100' d		vetek	SDA-50	00 Sigr	nal Leve	el Mete	r S/N 4	340571		Date: (	08/19/0	6	
Run	1				2				3				4				
	Time: 0	0: <b>18:48</b>			Time: 0	6:14:1 <u>3</u>			Time: 1	2:27:18				8:16:58			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjcnt		Vid	Aud	Adjont		Vid	Aud	Adjcnt		Viđ	Aud	Adjcnt		24 HR
	LVI	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	LvI	Diff	Diff_	Diff	Vid Diff
2	17.3	12.5		-3.0	17.1	12.2		-2.9	16.9	12.5		-0.6	17.0	12.4		-3.0	0.4
3	17.5	14.8	0.2	-2.1	17.5	14.9	0.4	-2.2	17.4	15.0	0.5	0.4	17.3	15.0	0.3	-2.5	0.2
4	17.0	14.2	-0.5	-1.7	17.4	14.7	-0.1	-1.1	18.0	15.7	0.6	1.8	17.8	15.5	0.5	-1.0	1.0
5	18.2	14.8	1.2	-0.8	18.4	15.1	1.0	-0.7	18.5	15.5	0.5	2.0	17.6	14.5	-0.2	-1.6	0.9
6	17.7	15.4	-0.5	-1.4	17.7	15.5	-0.7	-1.5	17.4	15.5	-1.1	0.4	17.5	15.6	-0.1	-1.7	0.3
<u>95</u> 96	18.9 18.4	14.9	1.2 -0.5	-0.9 -1.5	18.9 18.3	15.1 14.7	1.2 -0.6	-0.8	18.4	14.7 14.8	<u>1.0</u> -0.3	0.5	18.5 17.9	14.8 14.6	1.0	-1.6 -2.0	0.5 0.5
90 99*1	18.4	14.7	-0.5	-1.5	10.3	14.7	-0.0	-1.6	18.1	14.8	-0.3	0.2	17.9	14.0	-0.0	<u>  -2.0</u>	0.5
14	18.0	16.9	-0.4	-1.4	17.3	16.2	-1.0	-2.0	17.0	-0.4	-1.1	-0.2	18.1	15.6	0.2	-1.2	1.1
15	17.1	14.4	-0.4	-0.9	17.1	14.5	-0.2	-0.8	16.7	14.4	-0.3	0.6	16.6	14.2	-1.5	-1.4	0.5
16	16.9	15.2	-0.9	-0.9	17.2	15.2	0.1	-0.0	16.6	16.8	-0.3	0.0	16.7	14.2	0.1	-1.4	0.5
17	17.0	13.7	0.1	-2.0	17.0	13.6	-0.2	-2.1	16.5	13,4	-0.1	-1.0	16.8	13.7	0.1	-2.4	0.5
18	17.1	15.1	0.1	-0.9	17.1	15.1	0.1	-0.7	16.6	15.1	0.1	0.1	16.9	15.3	0.1	-1.1	0.5
10	17.0	15.1	-0.1	-2.0	17.0	15.1	-0.1	-0.4	16.7	15.1	0.1	-0.3	16.8	15.2	-0.1	-2.1	0.3
20	18.0	15.7	1.0	-0.9	17.9	15.6	0.9	-0.9	17.4	15.5	0.7	0.4	17.5	15.7	0.7	-1.4	0.6
21	17.1	14.3	-0.9	-1.7	17.0	14.3	-0.9	-1.8	16.6	14.3	-0.8	-0.4	16.7	14.4	-0.8	-2.2	0.5
22	17.6	15.0	0.5	-1.6	17.6	14.9	0.6	-1.6	17.2	14.9	0.6	-0.7	17.4	15.2	0.7	-1.8	0.4
7	17.6	14.1	0.0	-1.3	18.3	14.7	0.7	-0.6	17.9	14.8	0.7	0.7	17.5	14.4	0.1	-1.4	0.8
8	17.9	14.9	0.3	-0.7	17.9	14.7	-0.4	-0.6	17.6	15.0	-0.3	0.3	17.5	14.8	0.0	-1.1	0.4
9	18.6	15.9	0.7	-0.2	17.8	14.9	-0.1	-1.0	18.1	15.7	0.5	0.3	17.9	15.5	0.4	-0.9	0.8
10	18.4	15.6	-0.2	-0.7	18.4	15.5	0.6	-0.9	18.0	15.6	-0.1	-0.6	17.9	15.4	0.0	-1.5	0.5
11	18.2	15.0	-0.2	-1.8	18.3	15.0	-0.1	-1.5	17.9	15.2	-0.1	-1.1	17.8	15.1	-0.1	-2.1	0.5
12	18.4	15.1	0.2	-2.0	18.6	15.1	0.3	-1.8	18.2	15.4	0.3	-1.3	18.3	15.5	0.5	-2.4	0.4
13	18.4	15.5	0.0	-2.4	18.7	15.6	0.1	-2.1	17.8	15.3	-0.4	-1.7	17.8	15.3	-0.5	-3.0	0.9
23	18.3	15.5	-0.1	-1.1	18.5	15.5	-0.2	-0.7	17.9	15.7	0.1	-0.3	17.9	15.6	0.1	-1.3	0.6
24*1																	
25	17.7	14.7	-0.6	-0.1	17.5	14.4	-1.0	-0.2	17.0	14.5	-0.9	-0.1	17.1	14.7	-0.8	-0.6	0.7
26	17.9	15.0	0.2	-1.6	18.3	15.3	0.8	-1.2	17.7	15.4	0.7	-0.7	17.7	15.5	0.6	-1.7	0.6
27	18.2	14.6	0.3	-1.4	18.5	14.8	0.2	-1.2	17.4	14,4	-0.3	-1.0	17.5	14.5	-0.2	-2.4	1.1
28	18.3	16.0	0.1	-1.5	18.5	15.9	0.0	-1.4	17.5	15.6	0.1	-1.8	17.7	15.8	0.2	-2.5	1.0
29	17.9	15.6	-0.4	-0.9	18.3	15.7	-0.2	-0.5	17.2	15.7	-0.3	-1.2	17.7	16.2	0.0	-1.3	1.1
30	18.0	15.2	0.1	-1.3	18.1	15.1	-0.2	-1.3	17.1	14.9	-0.1	-1.7	17.3	15.0	-0.4	-2.3	1.0
31	18.1	15.0	0.1	-1.0	18.1	14.9	0.0	-0.9	17.5	14.8	0.4	-1.1	17.6	14.8	0.3	-1.6	0.6
32	17.8	15.9	-0.3	-1.6	17.8	15.6	-0.3	-1.6	17.5	15.5	0.0	-1.4	17.5	15.5	-0.1	-2.2	0.3

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Test	Point	#10

(Comcast.

### 5465 Colfax Ave 24 Hour Level Variation

100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057( Date: 08/19/06 Equipment Used: Run 4 3 Time: 00:18:48 Time: 06:14:13 Time: 12:27:18 Time: 18:16:58 Temp 75 74 80 85 Vid Aud Adjont 6 Mth Vid Vid Aud Adjont 6 Mth Chan Aud Adjont 6 Mth Vid Aud Adjont 6 Mth 24 HR 33 17.3 15.4 -0.5 17.4 15.3 -0.4 15.5 -0.4 -1.3 -1.1 17.4 -0.1 17.3 15.4 -0.2 -1.4 0.1 34 17.0 15.2 -0.3 -1.2 17.0 15.0 -0.4 -1.2 16.7 15.2 -0.7 -1.2 16.8 15.2 -0.5 -1.4 0.3 35 17.9 -0.9 17.4 -1.0 17.3 17.5 15.7 0.5 -1.5 15.9 0.9 16.1 0.7 15.8 0.5 -1.4 0.6 36 16.9 15.1 -0.6 -2.0 17.0 15.1 -0.9 -1.6 16.7 15.3 -0.7 -1.7 16.5 15.0 -0.8 -2.2 0.5 37 17.4 15.4 0.5 -1.7 17.8 15.7 0.8 -1.5 17.0 15.3 0.3 -2.0 17.0 15.3 0.5 -2.4 0.8 38 17.4 15.1 0.0 -2.0 17.5 15.0 -0.3 -1.7 17.0 15.0 -2.5 17.2 15.2 -2.0 0.0 0.2 0.5 39 17.5 14.9 -1.6 17.6 -1.4 17.2 15.1 -1.5 17.2 14.9 0.1 14.9 0.1 0.2 0.0 -1.8 0.4 -1.2 40 17.2 15.2 -0.3 -1.6 17.4 15.4 -0.2 -1.4 17.1 15.5 -0.1 17.0 15.4 -0.2 -2.0 0.4 -1.7 -1.7 17.3 15.7 0.2 -1.4 17.1 15.6 0.1 -2.2 0.5 41 17.6 15.7 0.4 17.5 15.3 0.1 -0.3 0.3 15.0 -0.1 16.4 -0.7 -0.5 0.8 42 17.0 14.6 -0.6 0.1 17.2 14.9 16.5 -0.8 14.7 43 17.5 15.2 1.0 17.4 15.0 18.1 15.0 1.1 0.5 18.2 15.1 1.0 0.6 1.0 1.0 -0.2 0.8 44 18.8 0.7 -0.5 18.8 0.6 -0.5 18.3 15.8 0.8 0.7 18.4 15.8 1.0 0.5 15.7 15.5 -0.7 45 18.7 15.7 -0.1 -0.3 18.7 15.4 -0.1 -0.1 17.8 16.7 -0.5 0.3 18.1 17.0 -0.3 -0.7 0.9 46 17.2 15.0 -1.5 -2.0 17.3 15.1 -1.4 -2.1 17.1 15.5 -0.7 -0.9 17.0 15.3 -1.1 -2.3 0.3 47 15,7 15.5 15.5 15.2 16.2 15.5 -1.0 -2.1 15.9 15.1 -1.4 -2.3 -1.4 -1.5 -1.5 -2.9 0.7 48 17.9 14.7 1.7 -0.6 18.2 15.0 2.3 -0.1 17.3 14.5 1.6 -0.7 17.3 14.6 1.8 -1.1 0.9 17.7 49 0.3 15.1 -1.9 17.8 15.4 -0.8 15.3 -2.2 0.5 18.2 15.3 -1.7 18.1 -0.1 0.5 0.4 17.8 -0.3 18.0 15.2 -1.9 0.7 50 18.5 15.4 0.3 -1.2 18.5 15.2 0.4 -1.3 15.1 0.0 0.3 -1.8 15.0 -0.1 -1.6 17.9 15.0 0.1 -0.1 17.9 15.1 -0.1 -2.0 0.5 51 18.1 14.7 -0.4 18.4 -2.1 0.5 -1.9 14.9 0.4 -1.7 18.4 15.0 0.5 0.1 18.5 15.2 0.6 52 18.9 15.0 0.8 18.8 53 19.0 15.1 0.1 -1.6 18.8 14.9 0.0 -1.8 18.6 15.1 0.2 -0.1 18.5 15.1 0.0 -2.4 0.5 0.7 54 -1.1 -0.2 -1.4 18.0 14.5 -0.6 -0.4 18.1 14.7 -0.4 -1.9 18.7 14.7 -0.3 18.6 14.6 -0.1 -2.0 18.1 15.3 -0.5 18.3 15.4 0.2 -1.9 0.6 55 18.7 15.3 0.0 -1.9 18.5 15.1 0.1 18.7 14.9 0.6 18.1 14.2 -0.2 -2.6 0.9 56 18.<del>9</del> 14.5 0.2 -1.6 19.0 14.7 0.5 -1.4 0.6 57 19.4 0.5 -1.6 19.4 15.2 0.4 -1.5 18.9 15.2 0.2 1.1 18.9 15.2 0.8 -2.1 0.5 15.1 58 19.3 16.0 -0.1 0.2 19.1 15.7 -0.3 -0.2 18.5 15.6 -0.4 2.5 18.5 15.8 -0.4 -0.7 0.8 59 -0.8 -1.6 15.2 -0.6 -1.8 17.9 14.9 -0.6 1.0 17.9 14.9 -0.6 -2.2 0.6 18.5 15.1 18.5 15.2 0.2 1.5 18.0 15.2 0.1 -1.5 0.6 60 -0.8 15.2 0.1 -0.9 18.1 18.6 15.2 0.1 18.6 61 18.9 15.9 0.3 -1.1 18.9 15.8 0.3 -1.2 18.2 15.7 0.1 1.4 18.3 15.8 0.3 -1.7 0.7 15.2 2.0 18.3 15.3 0.0 -1.7 0.6 62 18.9 15.3 0.0 -0.9 18.9 15.4 0.0 -1.0 18.3 0.1 63 19.2 15.9 0.3 -1.1 19.3 16.0 0.4 -1.0 19.0 16.2 0.7 2.4 18.9 16.0 0.6 -1.3 0.4 -1.5 64 18.4 15.5 -0.8 -0.9 18.5 15.4 -0.8 -0.9 17.9 15.5 -1.1 1,3 17.8 15.3 -1.1 0.7 65 15.2 0.1 -0.8 17.8 14.9 -0.1 1.8 18.0 15.1 0.2 -1.4 0.8 18.3 14.8 -0.1 -0.8 18.6 66 -1.1 18.3 15.3 0.5 2.1 18.4 15.3 0.4 -1.5 0.6 0.6 -1.0 18.7 15.1 0.1 18.9 15.3 -0.3 19.5 15.6 1.2 3.3 19.6 15.8 1.2 -0.8 0.5 67 19.9 15.6 1.0 -0.4 20.0 15.7 1.3 18.8 15.1 -0.7 2.5 18.9 15.2 -0.7 -1.6 68 19.5 15.3 -0.4 -1.0 15.4 -0.4 -1.0 0.8 19.6 69 -0.3 -1.3 18.8 15.3 0.0 2.4 19.0 15.5 0.1 -1.5 0.7 19.5 15.4 0.0 -1.1 19.3 15.2 70 19.8 15.5 0.3 -1.3 19.7 15.4 0.4 -1.2 19.1 15.4 0.3 2.3 19.0 15.3 0.0 -1.8 0.8 71 -1.1 -1.2 18.8 14.6 -0.9 -1.0 18.0 14.3 -1.1 2.4 18.1 14.4 -0.9 -1.8 0.8 18.7 14.4 15.9 -1.1 1.5 15.9 -1.2 -2.6 0.6 72 17.5 15.9 -1.2 -2.0 17.4 15.8 -1.4 -2.1 16.9 16.9

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### Comcast

# 5465 Colfax Ave

24 Hour Level Variation

	Equipr	nent U	sed:	100' d	rop, Wa	vetek	SDA-50	00 Sig	nal Lev	el Mete	г S/N 4	34057(		Date: (	08/19/0	6	
Run	1				2				3		and a second		4				
	Time: 0	0:18:48			Time: 0	6:14:13			Time: 1	2:27:18			Time: 1	8:16:58			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	24 H
73	19.1	15.2	1.6	-0.8	18.9	15.0	1.5	-0.9	18.3	15.0	1.4	2.4	18.4	15.0	1.5	-1.5	0.8
74	18.7	15.0	-0.4	-1.8	18.8	15.2	-0.1	-1.6	18.2	15.1	-0.1	2.1	18.1	15.0	-0.3	-2.4	0.7
75*1																	
76	18.5	14.8	-0.2	-0.5	18.4	14.7	-0.4	0.0	18.0	14.9	-0.2	3.8	18.0	14.8	-0.1	-1.0	0.5
77	18.1	16.0	-0.4	0.6	18.3	16.3	-0.1	0.9	17.5	16.0	-0.5	4.5	17.4	15.9	-0.6	0.2	0.9
78*1																	
Min Value	16.2	12.5	-1.5	-3.0	15.9	12.2	-1.4	-2.9	15.7	-0.4	-1.4	-2.5	15.5	12.4	-1.5	-3.0	0.1
Max Value	19.9	16.9	1.7	0.6	20.0	16.3	2.3	0.9	19.5	16.8	1.6	4.5	19.6	17.0	1.8	0.2	1.1
Notes																	

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Notes:

\*1 - Channel removed from Analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

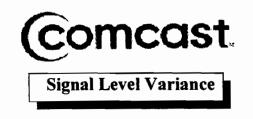
### Comeast

### 2357 N Early St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

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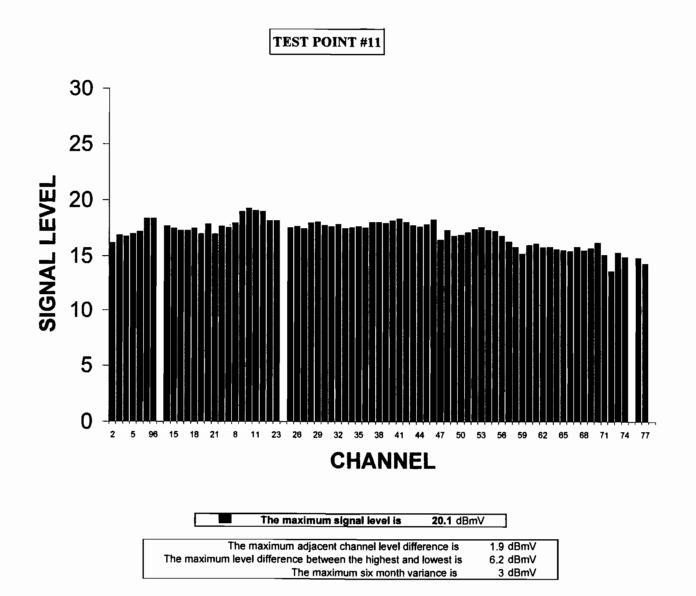
1

	Date: 08/3	0/06	Time: 12:0	0 pm	Temp: 78				
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF		
	CH,	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max		
	2	1.2	0.8	73.6	65.0	50.1	4.5000		
	95	1.4	0.7	72.4	67.4	51.1	4.5000		
	21	1.1	0.8	72.5	65.6	50.1	4.5001		
	8	1.2	0.6	63.9	66.4	50.4	4.5001		
	28	1.2	0.7	70.6	74.9	51.4	4.5000		
	32	1.1	0.7	65.4	64.0	50.3	4.5001		
	47	1.4	0.6	77.0	72.0	49.4	4.5000		
	58	1.5	0.7	67.2	70.0	50.2	4.5000		
	72	1.2	0.7	64.7	68.3	48.0	4.5000		
Minimum	values:	1.1	0.6	63.9	64.0	48.0	4.5000		
Maximum	values:	1.5	0.8	77.0	74.9	51.4	4.5001		



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							T	est Po	int #1	1							
	(cor	nca	st				2	2357 N	Early S	t							
									vel Vari								
	Equipn	nent Us	ed:	<u>100' d</u>		vetek	SDA-50	00 Sigr	nal Leve	el Mete	r S/N 43	340571		Date: (	08/19/0	6	
Run	1				2				3				_ 4		_		
L-	Time: 0	0:31:23			Time: 0	<u>8:28:03</u>			Time: 1	2:46:37				8:31:42			
Temp	75				_74				80				85				
Chan	Vid	Aud	Adjont		Vid	Aud	Adjent	6 Mth	Vid	Aud			Vid	Aud			24 HR
	LvI	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Vid Diff
2	16.2	12.1	0.7	-1.2	17.3	12.4		-0.2	17.3	12.4	0.0	-0.3	17.3	12.4	107	-0.2	1.1
3	16.9	14.8	0.7	-0.2	17.8	14.9	0.5	0.5	17.6	14.5	0.3	0.1	17.8	14.8	0.5	0.8	0.9
4	16.8	14.7	-0.1	0.3	18.4	15.5	0.6	2.4	<u>18.1</u> 17.6	15.2 13.9	0.5	1.7 0.8	19.2 18.4	16.2	1.4	3.0	2.4
6	<u>17.0</u> 17.2	14.3 15.4	0.2	0.3	17.9 18.0	14.1 15.4	-0.5 0.1	1.4	17.6	15.4	-0.5	0.8	18.4	14.7 15.4	-0.8	1.9	<u>1.4</u> 0.9
95	18.4	14.6	1.2	0.3	19.2	14.9	1.2	1.2	19.1	15.4	1.1	1.1	19.1	14.8	1.0	1.1	0.9
96	18.4	14.9	0.0	0.6	18.7	14.6	-0.5	1.0	18.8	14.8	-0.3	1.0	18.6	14.5	-0.5	0.7	0.0
99*1	10.4	14.5	0.0	0.0	10.7	14.0	-0.5	1.0	10.0	14.0	-0.0	1.0	10.0	14.0	-0.5	0.7	- <u>,</u>
14	17.7	16.5	-0.7	0.5	18.0	16.3	-0.7	0.6	17.7	16.2	-1.1	0.2	18.0	16.5	-0.6	0.8	0.3
15	17.5	14.5	-0.2	1.3	17.8	14.7	-0.2	1.7	17.8	14.7	0.1	1.6	17.8	14.6	-0.2	1.7	0.3
16	17.3	17.3	-0.2	0.7	17.6	15.3	-0.2	0.8	17.6	15.0	-0.2	0.7	17.7	15.6	-0.1	1.1	0.4
17	17.3	13.5	0.0	-0.2	17.9	13.6	0.3	0.5	17.8	13.6	0.2	0.2	17.8	13.5	0.1	0.3	0.6
18	17.5	15.6	0.2	1.0	18.1	15.4	0.2	1.9	17.9	15.3	0.1	1.3	18.2	15.4	0.4	1.7	0.7
19	17.0	14.6	-0.5	-0.2	17.7	14.6	-0.4	2.8	17.8	14.6	-0.1	0.8	18.0	14.8	-0.2	1.0	1.0
20	17.9	15.3	0.9	0.7	18.5	15.2	0.8	1.5	18.6	15.3	0.8	1.3	18.4	15.0	0.4	1.4	0.7
21	17.0	14.1	-0.9	0.0	18.1	14.3	-0.4	1.0	17.8	14.0	-0.8	0.5	17.8	13.9	-0.6	0.8	1.1
22	17.7	15.2	0.7	0.0	18.6	<u>15.1</u>	0.5	0.9	18.5	14.9	0.7	0.7	18.8	15.3	1.0	0.9	1.1
7	17.6	14.2	-0.1	0.4	19.0	14.7	0.4	1.7	<u>18.9</u>	14.6	0.4	1.4	18.8	14.5	0.0	1.6	1.4
8	18.0	14.9	0.4	_0.6	19.0	14.9	0.0	<u>1.6</u>	18.9	14.9	0.0	1.4	<u>19.</u> 1	15.1	0.3	1.8	1.1
9	19.0	15.3	1.0	1.2	20.1	15.8	1.1	2.3	19.5	15.3	0.6	1.5	19.8	15.6	0.7	2.0	1.1
10	19.3	15.3	0.3	0.6	20.1	15.7	0.0	1.4	19.9	15.7	0.4	1.2	19.8	15.5	0.0	1.2	0.8
11	19.1	15.5	-0.2	0.0	19.8	15.4	-0.3	0.7	19.6	15.4	-0.3	0.5	19.6	15.3	-0.2	0.6	0.7
12	19.0	15.7	-0.1	-0.4	19.7	15.4	-0.1	0.3	19.4	15.4	-0.2	-0.1	19.5	15.4	-0.1	0.0	0.7
13	18.2	15.4	-0.8	-1.1	19.2	15.5	-0.5	0.0	18.9 18.9	15.4 15.2	-0.5	-0.7	18.6 19.0	15.0 15.2	-0.9	-0.9 0.8	1.0
23 24*1	18.2	15.3	0.0	0.0	19.2	15.2	0.0	1.0	18.9	15.2	1.0.0	0.5	19.0	15.2	0.4	0.8	1.0
24*1	17.6	15.2	-0.6	0.6	18.6	15.2	-0.6	1.5	18.6	15.3	-0.3	1.5	18.4	15.2	-0.6	1.3	1.0
25	17.0	15.2	0.1	-0.5	18.7	15.2	0.0	0.3	18.4	15.5	-0.3	0.0	18.6	15.2	0.0	0.2	1.0
20	17.5	14.3	-0.2	-0.9	18.7	14.5	0.0	0.3	18.5	14.4	0.1	0.0	18.4	14.3	-0.2	0.2	1.0
28	18.0	15.9	0.5	-1.3	18.9	15.6	0.0	-0.6	18.5	15.4	0.0	-1.0	18.9	15.7	0.5	-0.4	0.9
29	18.1	15.9	0.1	-0.4	18.8	15.5	-0.1	0.4	18.7	15.6	0.2	0.1	18.7	15.6	-0.2	0.3	0.7
30	17.8	15.5	-0.3	-0.9	18.8	15.5	0.0	0.1	18.8	15.6	0.1	0.0	18.6	15.3	-0.1	-0.2	1.0
31	17.7	14.9	-0.1	-0.8	18.7	14.9	-0.1	0.2	18.7	14.9	-0.1	0.1	18.9	15.2	0.3	0.3	1.2
32	17.9	15.8	0.2	-0.9	18.5	15.4	-0.2	-0.5	18.4	15.6	-0.3	-0.9	18.6	15.8	-0.3	-0.3	0.7



Comcast.

2357 N Early St 24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057( Equipment Used: Date: 08/19/06

Run	1 2							4									
	Time: 0	0:31:23			Time: 0	6: <u>28</u> :03				2:46:37				8:31:42			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
33	17.5	15.0	-0.4	-0.4	18.3	15.1	-0.2	0.7	18.1	15.0	-0.3	0.2	18.3	15.1	-0.3	0.5	0.8
34	17.6	15.4	0.1	-0.4	18.2	15.2	-0.1	0.3	18.2	<u>15</u> .3	0.1	0.1	18.1	15.1	~0.2	0.2	0.6
35	17.7	15.1	0.1	-0.7	18.3	15.0	0.1	-0.2	18.5	15.5	0.3	-0.3	18.4	15.2	0.3	0.0	0.8
36	17.6	_15.1	-0.1	-1.0	18.2	15.2	-0.1	-0.1	18.1	15.1	-0.4	-0.4	<u>17.9</u>	14.9	-0.5	-0.5	0.6
37	18.1	<u>15.3</u>	0.5	-0.9	18.9	15.5	0.7	-0.1	18.5	15.1	0.4	-0.5	18.5	<u>15.1</u>	0.6	-0.5	0.8
38	18.1	15.4	0.0	<u>-1.1</u>	18.9	15.4	0.0	-0.6	18.8	15.5	0.3	-0.6	19.0	15.7	0.5	0.1	0.9
39	18.0	14.7	-0.1	-0.6	18.7	14.9	-0.2	0.1	18.7	15.2	-0.1	-0.1	18.3	14.7	-0.7	-0.4	0.7
40	18.2	<u>15.3</u>	0.2	-0.1	<u>18.9</u>	15.4	0.2	0.6	18.6	15.3	-0.1	0.2	18.6	15.3	0.3	0.3	0.7
41	18.4	15.4	0.2	-0.3	19.0	15.3	0.1	0.3	18.7	15.6	0.1	0.1	18.8	15.5	0.2	0.1	0.6
42	18.1	15.1	-0.3	1.6	18.6	15.1	-0.4	2.1	18.3	<u>15.</u> 1	-0.4	2.0	18.4	15.1	-0.4	1.8	0.5
43	17.8	<u>16.1</u>	-0.3	1.3	18.6	15.6	0.0	2.1	18.7	<u>15.7</u>	0.4	2.2	18.7	15.5	0.3	2.2	0.9
44	17.7	<u>15.1</u>	-0.1	0.2	18.8	15.1	0.2	1.3	19.0	15.5	0.3	1.4	19.0	15.3	0.3	1.4	1.3
45	17.9	15.4	0.2	0.3	19.2	15.9	0.4	1.9	19.4	16.0	0.4	2.0	19.1	15.8	0.1	1.6	1.5
46	18.3	15.5	0.4	0.0	19.2	15.5	0.0	0.9	19.3	15.5	-0.1	1.2	19.4	15.6	0.3	1.4	1.1
47	16.5	15.9	-1.8	-0.8	17.3	15.7	-1.9	0.0	17.5	15.8	-1.8	0.0	17.5	15.7	-1.9	0.3	1.0
48	17.4	15.2	0.9	-0.5	18.3	15.3	1.0	0.5	18.5	15.3	1.0	0.3	18.7	15.3	1.2	0.7	1.3
49	16.9	15.3	-0,5	-1.7	18.0	15.5	-0.3	-0.6	18.3	15.8	-0.2	-0.4	18.3	15.8	-0.4	-0.3	1.4
50	17.0	15.4	0.1	-0.9	17.8	15.1	-0.2	-0.3	<u>17.7</u>	15.1	-0.6	-0.6	17.9	15.4	-0.4	-0.2	0.9
51	17.2	15.4	0.2	-0.7	18.1	15.3	0.3	0.3	17.6	14.8	-0.1	-0.6	17.8	15.2	-0.1	-0.2	0.9
52	17.5	15.0	0.3	-0.8	18.2	14.8	0.1	-0.3	18.5	15.3	0.9	0.0	18.1	15.2	0.3	-0.2	1.0
53	17.7	15.1	0.2	-0.8	18.4	14.9	0.2	0.2	18.4	15.2	-0.1	-0.5	18.2	15.2 15.1	0.1	-0.5 -0.4	0.7
54	17.4	15.0	-0.3	-0.7	18.5	15.2	0.1	0.2	18.2	15.3	-0.2	-0.2	18.0 17.8	15.1	-0.2	-0.4	0.8
55	17.3	15.5	-0.1	-1.1	18.1	15.5 15.3	-0.4 -0.3	-0.5	17.8	15.7 15.4	-0.4	-0.9	17.6	15.4	-0.2	-0.5	0.8
56	16.9	15.3	-0.4 -0.5	-1.3 -1.4	17.8 17.1	15.3	-0.3	-0.5	16.3	14.8	-0.5	-1.6	17.0	15.1	-0.2	-0.8	0.9
57	16.4	15.2		-0.1	16.6	15.2	-0.7	0.5	16.3	14.0	-0.2	0.1	16.4	15.6	-0.6	0.4	0.7
58	15.9	15.8	-0.5 -0.6	-0.1	16.0	14.6	-0.5	-1.0	15.6	14.3	-0.2	-1.5	16.0	14.7	-0.4	-0.9	0.8
59	15.3	14.5	-0.8	-0.5	16.7	14.0	-0.5	0.3	16.4	14.3	0.8	-0.4	16.6	15.2	0.6	0.0	0.6
60	16.1	15.4	0.8	-0.5	16.9	15.2	0.8	0.0	16.7	16.0	0.8	-0.4	16.7	15.9	0.0	-0.1	0.7
61	16.2	16.1	-0.3	-0.6	16.9	15.9	0.2	0.0	16.8	15.9	0.3	0.4	16.6	15.6	-0.1	0.3	1.0
62	15.9	15.5	0.0	-0.5	16.9	15.8	-0.1	0.3	16.6	15.9	-0.2	-0.2	16.8	15.3	0.2	0.2	0.9
63 64	<u>15.9</u> 15.7	15.2 15.6	-0.2	-0.8	16.4	15.2	-0.4	-0.4	16.3	15.2	-0.2	-0.2	16.4	15.6	-0.4	-0.2	0.7
			-0.2	-0.7	16.3	15.4	-0.4	0.2	15.9	15.7	-0.3	-0.2	16.3	15.6	-0.4	0.3	0.7
<u>65</u> 66	15.6 15.5	15.4 15.9	-0.1	-0.7	15.9	15.5	-0.4	-0.5	15.9	15.2	-0.4	-0.2	15.8	15.7	-0.5	-0.4	0.4
67	15.5	15.9	0.4	-0.8	16.5	15.5	0.6	0.4	16.2	15.6	0.5	0.0	16.5	15.7	0.7	0.3	0.4
68	15.9	15.4	-0.3	-0.3	16.2	15.4	-0.3	-0.3	15.9	15.3	-0.3	-0.6	15.9	15.1	-0.6	-0.4	0.6
69	15.8	15.2	0.2	-0.7	16.2	15.3	0.0	-0.2	16.2	15.5	0.3	-0.4	16.2	15.4	0.3	-0.4	0.4
70	16.3	15.3	0.2	-0.7	16.2	15.2	0.0	-0.2	16.2	15.3	0.3	-0.9	16,4	15.3	0.2	-0.4	0.4
70	15.2	14.5	-1.1	-0.4	15.8	14.7	-0.7	0.2	15.4	14.6	-0.9	-0.4	15.4	14.5	-1.0	-0.2	0.6
72	13.7	14.5	-1.5	-0.2	13.9	15.1	-1.9	-1.7	13.8	15.4	-1.6	-1.4	14.1	15.7	-1.3	-1.3	0.4
12	13.7	15,6	-1.5	-1.5	10.0	10.1	-1.3	-1.7	10.0	10.4	-1.0		<u> </u>			1.0	

# Comcast

2357 N Early St

Equipm	nent l	Jsed:

24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057(

	Equipr	nent Us	sed:	100' d	rop, Wa	vetek 8			nal Leve		r S/N 4	340571		Date:	08/19/0	6	
Run	1				2				3				4				
	Time: 0	0:31:23			Time: 0	6:28:03			Time: 1	2:46:37			Time: 1	8:31:42			
Temp	75				74				80				85				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
73	15.4	15.1	1.7	0.0	15.8	14.8	1.9	0.4	15.5	14.9	1.7	-0.4	15.7	15.0	1.6	-0.2	0.4
74	15.0	15.0	-0.4	-1.1	15.8	15.3	0.0	-0.3	15.2	15.0	-0.3	-1.1	15.2	14.9	-0.5	-0.9	0.8
75*1																	
76	14.9	15.1	-0.1	0.7	15.4	15.0	-0.4	1.5	15.0	15.0	-0.2	0.5	15.0	14.8	-0.2	0.8	0.5
77	14.4	15.9	-0.5	1.6	15.3	16.2	-0.1	2.4	14.7	16.0	-0.3	1.6	15.0	16.1	0.0	2.0	0.9
78*1																	
Min Value	13.7	12.1	-1.8	-1.9	13.9	12.4	-1.9	-1.7	13.8	12.4	-1.8	-1.6	14.1	12.4	-1.9	-1.3	0.2
Max Value	19.3	17.3	1.7	1.6	20.1	16.3	1.9	2.8	19.9	16.2	1.7	2.2	19.8	16.5	1.6	3.0	2.4

Notes:

\*1 - Channel removed from Analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

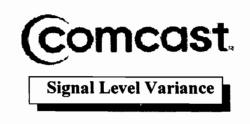
The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

### Head End

### Concest 3900 Wheeler Ave. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

1

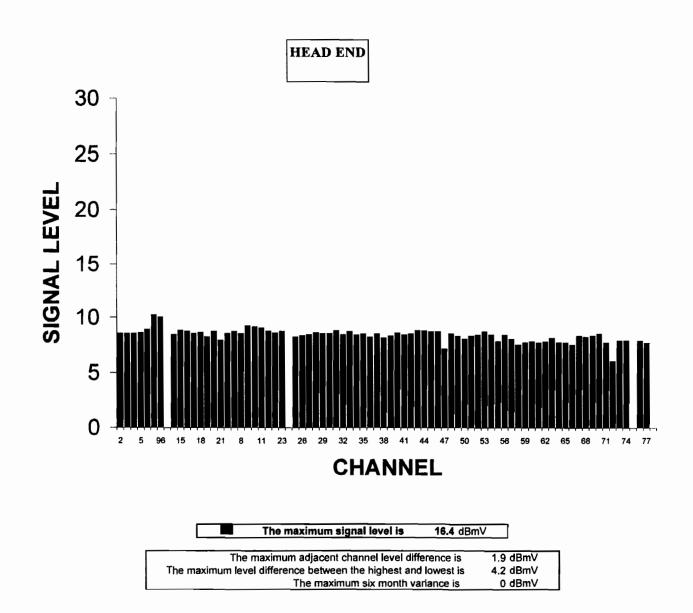
	Date: 08/2	5/06	Time: 7:00	pm	Temp: 68				
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF		
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max		
	2	0.7	1.0	71.8	71.3	52.0	4.5000		
	95	0.8	0.8	73.2	70.7	53.9	4.5000		
	21	0.8	1.0	70.2	68.9	52.0	4.5001		
	8	1.3	0.8	70.5	69.2	53.2	4.5001		
	28	1.1	1.0	72.9	74.4	52.9	4.5000		
	32	0.7	1.0	71.3	72.1	52.6	4.5001		
	47	0.9	0.8	71.1	69.4	52.5	4.5000		
	58	0.8	0.9	72.7	72.7	53.8	4.5000		
	72	0.9	0.6	68.6	68.9	48.2	4.5000		
Minimur	n values:	0.7	0.6	68.6	68.9	48.2	4.5000		
Maximu	m values:	1.3	1.0	73.2	74.4	53.9	4.5001		



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The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							·	Head	End								
	(Cor	nca	st				39	00 Wh	eeler Av	ve.							
	<b>~</b> _~								vel Vari								
(	Equipn	nent Us	sed:	100' d	rop, Wa	vetek	SDA-50	00 Sigi	nal Lev	el Mete	r S/N 4	340571		Date:	08/19/0	6	
Run	1				2				_3				4				
	Time: 0	0:03:45	_		Time: 0	6:01:46			Time: 1	2:05:45			Time: 1	8:00:53			
Temp	75				74				80	_			85			_	
Chan	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjcnt	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
	LvI	Diff	Diff	Diff	LvI	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Vid Diff
2	8.6	12.5			8.6	12.7			8.6	12.4			8.6	12.4			0.0
3	8.6	14.7	0.0		8.8	14.9	0.2		8.7	14.8	0.1		8.8	14.8	0.2	1	0.2
4	8.6	14.5	0.0		8.6	14.5	-0.2		9.3	15.3	0.6		8.3	14.3	-0.5		1.0
5	8.7	13.8	0.1		8.6	<u>13.7</u>	0.0		9.6	14.7	0.3		9.0	14.2	0.7		1.0
6	9.0	15.1	0.3		9.2	15.3	0.6		9.1	15.2	-0.5		9.4	15.5	0.4		0.4
95	10.3	14.8	1.3		10.1	14.7	0.9		10.3	14.9	1.2		10.2	14.9	0.8		0.2
96	10.1	15.0	-0.2		10.1	15.0	0.0		10.2	15.1	<u>-0.</u> 1		10.0	14.9	-0.2		0.2
99*1																	
14	8.5	<u>15.9</u>	-1.6		8.9	16.4	-1.2		9.1	16.4	-1.1		8.7	16.1	-1.3		0.6
15	8.9	14.9	0.4		8.7	14.8	-0.2		8,5	14.5	-0.6		8.8	14.8	0.1		0.4
16	8.8	15.1	-0.1		8.7	15.1	0.0		8.6	15.1	0.1		8.9	15.0	0.1		0.3
17	8.6	13.8	-0.2		8.4	13.7	-0.3		8.7	13.9	0.1		8.7	13.9	-0.2		0.3
18	8.7	15.3	0.1		8.6	15.3	0.2		8.7	15.3	0.0		<u>8.</u> 4	15.0	-0.3		0.3
19	8.3	15.1	-0.4		8.2	15.1	-0.4		8.3	15.1	-0.4		8.4	15.3	0.0		0.2
20	8.8	15.2	0.5		8.9	15.5	0.7		8.7	15.1	0.4		8.8	15.4	0.4		0.2
21	8.0	14.2	0.8		8.0	14.2	-0.9		8.1	14.3	-0.6		8.0	14.2	-0.8		0.1
22	8.6	<u>15.1</u>	0.6		8.5	15.1	0.5		8.5	14.9	0.4		8.5	15.0	0.5		0.1
7	8.8	14.7	0.2		8.3	14.3	-0.2		8.6	14.7	0.1		9.3	15.4	0.8		1.0
8	8.6	14.9	-0.2		8.9	15.2	0.6		8.6	14.9	0.0		8.6	15.0	-0.7		0.3
9	9.3	15.9	0.7		8.7	15.2	-0.2		9.2	15.8	0.6		9.2	15.8	0.6		0.6
10	9.2	15.5	-0.1		8.9	15.2	0.2		9.3	15.6	0.1		9.0	15.3	-0.2		0.4
11	9.1	15.4	-0.1		9.0	15.2	0.1		9.0	15.2	-0.3		9.0	15.2	0.0		0.1
12	8.8	15.0	-0.3		8.8	15.0	-0.2		9.1	15.3	0.1		8.7	15.0	-0.3		0.4
<u>13</u> 23	8.7	15.4	-0.1		8.8	15.4	0.0		8.6	15.2	-0.5		8.5	15.2	-0.2	L	0.3
23 24*1	8.8	15.1	0.1		8.9	15.2	0.1		8.7	15.0	0.1		8.8	15.2	0.3		0.2
24 1		45.4	-0.5		0.4	45.4	0.5			44.0	0.5			44.6		L	
	8.3	15.1			8.4	15.1	-0.5	-	8.2	14.9	-0.5		8.1	14.9	-0.7	<u> </u>	0.3
26 27	8.4	15.2	0.1		8.4	15.1	0.0		8.5	15.3	0.3		8.6	15.4	0.5	I	0.2
27	8.5	14.6	0.1		8.7	14.6	0.3		8.4	14.4	-0.1		8.5	14.5	-0.1		0.3
28	8.7	15.5	0.2 -0.1		8.8	15.6	0.1		8.8	15.7	0.4		8.7	15.6	0.2	<u> </u>	0.1
29 30	8.6 8.6	15.3 15.0	-0.1		8.6 8.8	<u>15.3</u> 15.2	-0.2 0.2		8.5	15.2 15.1	-0.3 0.1		8.6	15.4	-0.1	I	0.1
30	8.9	15.0	0.0		0.0 8.6	15.2	-0.2		<u>8.6</u> 8.8			_	8.4	14.9	-0.2	<u> </u>	0.4
31	8.5	15.0	-0.4		8.3	14.7	-0.2		8.8	14.9 15.1	0.2		9.0 8.6	15.2 15.2	0.6	<b>—</b>	0.4
	0.5	15.1	-0.4		0.5	14.3	-0.3		0.0	15.1	-0.2		0.0	15.2	-0.4	1	0.3

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								Head	End								
	(Cor	nca	st				39	00 Wh	eeler Av	/e.							
	<u> </u>								vel Vari								
	Equipn	nent Us	ed:	100' d	_	vetek S	SDA-50	00 Sigi	nal Leve	el Mete	<u>r S/N 4</u> :	340571		Date: 0	08/19/06	; 	
Run	1				_2				_3				4				
	Time: 0	0:03:45			Time: 0	6:01:46			Time: 12	2:05:45		_	Time: 1	8:00:53			
Temp	75				74		<u></u> .		80				85				
Chan	Vid		Adjoint	6 Mth			Adjent	6 Mth	and the second second	and the second sec	Adjent	6 Mth	The second s		Adjent	6 Mth	the second s
33	8.8 8.5	<u>15.4</u> 15.3	0.3		9.0 8.5	15.6 15.3	0.7 -0.5		9.0 8.8	15.6 15.6	0.4		8.7 8.5	15.3 15.4	0.1		0.3
34	8.6	15.5	-0.3		8.9	15.3	-0.5		8.6	15.0	-0.2		8.6	15.4	0.1		0.3
36	8.3	15.2	-0.3		8.4	15.3	-0.5		8.3	15.2	-0.2		8.3	15.2	-0.3		0.3
37	8.6	15.2	0.3		<u>0.4</u> 8.6	15.4	0.2		8.7	15.4	0.4		8.5	15.3	0.2		0.1
38	8.2	14.8	-0.4		8.4	15.0	-0.2		8.4	15.0	-0.3		8.5	15.1	0.0		0.3
39	8.4	14.9	0.2		8.5	15.0	0.1		8.6	15.0	0.2		8.4	14.9	-0.1	_	0.2
40	8.7	15.5	0.3		8.6	15.4	0.1		8.7	15.5	0.1		8.4	15.3	0.0		0.3
41	8.5	15.2	-0.2		8.7	15.4	0.1		8.8	15.5	0.1		8.7	15.5	0.3		0.3
42	8.6	15.5	0.1	_	8.7	15.6	0.0		8.4	15.3	-0.4		8.5	15.4	-0.2		0.3
43	8.9	15.8	0.3		8.6	15.4	-0.1		8.8	15.6	0.4	-	8.7	15.6	0.2		0.3
44	8.9	15.4	0.0		8.5	15.0	-0.1		8.7	15.2	-0.1		8.9	15.4	0.2		0.4
45	8.8	15.7	-0.1		8.7	15.6	0.2		8.9	15.8	0.2		8.6	15.5	-0.3		0.3
46	8.8	15.4	0.0		8.9	15.5	0.2		8.9	15.4	0.0		8.5	15.1	-0.1		0.4
47	7.2	15.6	-1.6		7.1	15.5	-1.8		7.1	15.5	-1.8		6.9	15.3	-1.6		0.3
48	8.6	15.3	1.4		8.4	15.2	1.3		8.4	15.1	1.3		8.4	15.2	1.5		0.2
49	8.4	15.4	-0.2		8.2	15.3	-0.2		8.5	15.5	0.1		8.3	15.4	-0.1		0.3
50	8.1	15.0	-0.3		8.2	15.2	0.0		8.2	15.2	-0.3		8.1	15.1	-0.2		0.1
51	8.4	15.5	0.3		8.1	15.2	-0.1		7.9	14.9	-0.3	Ļ	8.0	15.1	-0.1		0.5
52	8.5	15.1	0.1		8.7	15.3	0.6	L	8.6	15.2	0.7	<b></b>	8.3	14.9	0.3		0.4
53	8.8	15.3	0.3	<u> </u>	8.6	15.2	-0.1	<u> </u>	8.6	15.1	0.0	<u> </u>	8.5	15.1	0.2		0.3
54	8.5	15.1	-0.3	<u> </u>	8.4	15.0 15.0	-0.2	<u> </u>	<u>8.3</u> 8.1	14.9 15.0	-0.3	I	8.3 8.1	15.0	-0.2		0.2
55	7.9 8.5	14.8	-0.6		8.1 8.3	15.0	0.2		8.2	14.8	0.1	┣──	8.3	15.0	0.2		0.2
57	8.1	15.1	-0.4	<u> </u>	8.2	15.0	-0.1		8.1	15.0	-0.1		8.1	15.0	-0.2		0.3
58	7.6	14.9	-0.4		7.6	15.0	-0.6		7.7	15.1	-0.4	<u> </u>	7.7	15.1	-0.4		0.1
59	7.8	14.9	0.2		7.5	14.6	-0.0	-	7.7	14.8	0.0	-	7.7	14.9	0.0		0.3
60	7.9	15.3	0.2		7.8	15.3	0.3		7.8	15.3	0.1		7.7	15.2	0.0		0.2
61	7.8	15.7	-0.1		7.3	15.1	-0.5		7.7	15.5	-0.1		7.7	15.6	0.0		0.5
62	7.9	15.5	0.1	1-	7.9	15.5	0.6		7.7	15.2	0.0		7.7	15.4	0.0		3.0
63	8.2	15.4	0.3		8.1	15.3	0.2		8.3	15.5	0.6		8.1	15.4	0.4		0,2
64	7.8	15.3	-0.4	<u> </u>	7.8	15.3	-0.3		7.8	15.3	-0.5		7.6	15.1	-0.5		0.2
65	7.8	15.4	0.0		7.7	15.3	-0.1		7.8	15.3	0.0		7.9	15.5	0.3		0.2
66	7.6	15.5	-0.2		7.6	15.6	-0.1		7.5	15.4	-0.3		7.4	15.3	-0.5		0.2
67	8.4	15.2	0.8		8.2	15.0	0.6		8.2	15.0	0.7		8.1	15.0	0.7		0.3
68	8.3	15.2	-0.1		8.3	15.3	0.1		8.3	15.2	0.1		8.4	15.4	0.3		0.1
69	8.4	15.3	0.1		8.2	15.1	-0.1		8.3	15.3	0.0		8.3	15.4	-0.1		0.2
70	8.6	15.3	0.2		8.5	15.1	0.3		8.4	15.2	0,1		8.4	15.2	0.1		0.2
71	7.8	14.8	-0.8		7.8	14.7	-0.7	1	7.8	14.7	-0.6		7.7	14.7	-0.7		0.1
72	6.1	<u>15.1</u>	-1.7		6.3	15.3	-1.5		6.3	15.2	-1.5		6.2	15.2	-1.5		0.2

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### Head End

### (comcast

3900 Wheeler Ave.

24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057( Date: 08/19/06

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	Equipn	nent Us	ed:	100' d	rop, Wa	vetek S	SDA-50	00 Sigi	nal Leve	el Mete	r S/N 43	340571		Date: (	08/19/0	6	
Run	1				2				3				4				
	Time: 0	0:03:45			Time: 0	6:01:46			Time: 1	2:05:45			Time: 1	8:00 <u>:</u> 53			
Temp	7 <u>5</u>				74				80				85				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjcnt	6 Mth	24 <u>HR</u>
73	8.0	14.6	1.9		8.0	14.5	1.7		8.1	14.6	1.8		8.1	14.7	1.9		0.1
74	8.0	15.1	0.0		8.0	15.1	0.0		7. <del>9</del>	15.1	-0.2		7.9	15.1	-0.2		0.1
75*1																	
76	8.0	14.9	0.0		8.0	15.0	0.0		7.9	14.9	0.0		7.9	14.9	0.0		0.1
77	7.8	16.1	-0.2		8.0	16.3	0.0		7.9	16.2	0.0		8.0	16.4	0.1		0.2
78*1																	
Min Value	6.1	12.5	-1.7		6.3	12.7	-1.8		6.3	12.4	-1.8		6.2	12.4	-1.6		0.0
Max Value	10.3	16.1	1.9		10.1	16.4	1.7		10.3	16.4	1.8		10.2	16.4	1.9		3.0

Notes:

New test site no 6 month reference

\*1 Channel removed from Analog line-up



The ranges allowed by the FCC (76.605 (a)(11)(i, ii, iii)) are as follows:

- i. The chrominance-luminance delay inequality shall be within 170 nanoseconds.
- ii. The differential gain for the color subcarrier of the television signal shall not exceed +/-20%.
- iii. The differential phase for the color subcarrier of the television signal shall not exceed +/-10 degrees.

### Concest

### 3900 Wheeler Ave. Alexandria, VA FCC Headend Video Test EQUIPMENT USED: Tektronix VITS200, S/N B021155 Tektronix TDC-10, S/N B010330 Tektronix 1450-1, S/N B021437 Tektronix VM700A, S/N B042679

	Date: 8/25/0	)6 Time: 7:30	pm	Temp: 68			
		Differential Gain	Differential Phase	Chroma/Luma Delay			
	СН.	+/-20%	+/-10 Deg.	<170nsec.			
	2	2.37	0.97	8.4			
	17	2.31	0.99	26.3			
	8	2.51	0.66	33			
	27	1.60	0.58	27.9			
	31	1.93	0.73	27.5			
	39	1.68	0.88	3.9			
	46	2.67	1.99	15.8			
	55	3.55	0.97	32.1			
	74	1.58	0.75	25			
Maximum	values:	3.55%	1.99 Deg.	33.00 nsec.			



# Explorer<sup>®</sup> 3100HD High Definition DHCT

Subscriber Networ

### Description

The Explorer<sup>®</sup> 3100HD Digital Home Communications Terminal (DHCT) combines highdefinition (HD) video capability with both analog and digital broadcast services including interactive videoon-demand (VOD), subscription VOD (SVOD), Web browsing, email and chat services.

This Explorer DHCT, scheduled for release in early 2002, decodes all 18 ATSC high-definition digital formats for HDTV presentation, as well as standard definition digital and analog video services, providing a compre-hensive and scalable solution to demand for high-quality HDTV video services.

The Explorer 3100HD DHCT upconverts all video services to 1080i resolution and passes the signal through its component outputs to the HDTV. The HD YPbPr component outputs make it simple to connect to almost any HDTV. Also, the Explorer 3100HD DHCT is fully backward compatible with existing Scientific-Atlanta digital set-tops and headends, and meets major industry standards including CableLabs/SCTE, ATSC, and DAVIC.

With its high-speed DAVIC cable modem, the Explorer 3100HD DHCT communicates instantly with the cable headend to promote real-time, interactive services such VOD, SVOD, Internet browsing, and email. A powerful 32-bit, 130 MHz RISC microprocessor speeds up applications and processing tasks for instantaneous results.

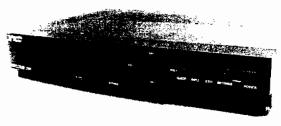
### Features

HD Component Video Connectors Composite Audio/Video Outputs

**Reverse Path DAVIC Data Transmitter** 

### Compact Size

MPEG-2 MP@HL Digital Video Decompression



Explorer 3100HD DHCT offers a comprehensive and scalable solution to demand for HDTV.

#### **Ordering & Availability**

Part Number:	• 749300
Software:	• OS 3.1 and SARA 1.21 (or 1.15)
Standard	Single tuner
Features:	<ul> <li>130 MIPS</li> </ul>
	<ul> <li>16MB applications DRAM</li> </ul>
	<ul> <li>Front panel USB</li> </ul>
	<ul> <li>Integrated VCR Commander™</li> </ul>
	<ul> <li>18 ATSC HDTV formats</li> </ul>
	Supports all analog, standard-, and high-definition services
Optional	Expanded memory
Features:	RF bypass
	Web browser, email, real-time chat, and interactive games
Available:	Scheduled for release early 2002

- Allows simple connection to most HDTVs
- Allows connection to TV or VCR for recording standard definition video
- Allows instantaneous, IP-based, "real-time" twoway communication between the DHCT and the headend
- Enables MSO to offer two-way services such as VOD, SVOD, Web browsing, email, chat
- Transmits up to 1.544 Mbps
- 14" X 9.5" X 2.75" (LXWXH)
- Allows transport and decompression of audio and video
- Delivers video resolution up to 1920 x 1080i

Dolby<sup>®</sup> AC3<sup>®</sup> and Musicam Digital Audio PowerKEY<sup>®</sup> Conditional Access System

PowerTV<sup>®</sup> Operating System with HTML Client Engine

Enhanced Graphics Engine

Powerful 32-bit RISC Processor

**Over 40 MBytes Memory** 

64 and 256 ITU Annex B QAM Support

Analog and Digital Service Tuner

Both Internal Security Microprocessor and Smart Card Slot

Macrovision<sup>®</sup> Copy Protection

Universal Serial Bus (USB) Interface

**BTSC/SAP Decoder** 

S/PDIF Digital Audio Interface

Integrated VCR Commander™

**Custom Branding Insert** 

**Optional RF Bypass** 

- · Supports leading digital audio standards
- Secures digital services via an RSA encryption algorithm that mathematically matches pairs of keys
- Provides Application Programming Interfaces (APIs) that enable client applications to use the resources managed by the operating system for delivering broadcast and interactive services
- Allows upgrades using a network download
- Displays up to 65,000 colors simultaneously
- Enables high resolution 640 x 480 graphics
- Simultaneously scales standard definition MPEG-2 video
- Features 130 MHz (130 MIPs) processor speed to perform tasks and applications quickly
- 4 MBytes Flash
- 16 MBytes Applications DRAM
- 4 MBytes Media DRAM
- 16 Mbytes of HDTV Decoder memory
- 2 KBytes Non-volatile machine memory
- Supports open standards for QAM delivery and demodulation
- Allows both analog and MPEG-2 digital channels to be tuned and displayed
- Provides hardware-assisted conditional access options with capability to upgrade the security, if ever needed
- Allows the MSO to restrict unauthorized subscribers from copying digital services, such as pay-per-view and VOD
- Front panel access allows easy interconnection with other digital devices such as digital cameras
- Provides stereo sound on analog channels via the composite baseband left and right outputs
- Supports interconnection with Dolby Digital<sup>™</sup> Receivers
- Automates the recording of selected video programs; requires optional IR Blaster Cable
- Allows you to brand the DHCT with your service or company identifier
- Allows the video signal to bypass through the DHCT directly to the TV

Specifications, features, and product availability are subject to change without notice.



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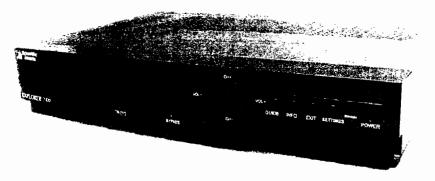
Scientific Atlanta

Scientific-Atlanta, Inc. 1-800-722-2009 or 770-236-6900 www.sciatl.com

Part Number 745880, Rev. C October 2001 Subscriber Networks



# Explorer<sup>®</sup> 3100 Digital Home Communications Terminal



### Description

The Scientific-Atlanta Explorer<sup>®</sup> 3100 Digital Home Communications Terminal (DHCT) provides support for digital services, traditional non-scrambled analog services, and optional scrambled analog services delivered through a hybrid fiber/coax (HFC) network. The Explorer DHCT features a 32-bit, 130 MHz RISC microprocessor; an Internet Protocol-based, real-time reverse path DAVIC transmitter; and an out-of-band control channel that can support interactive or session-based services.

The Explorer 3100 DHCT contains 24 MB of total memory that can support services such as video-on-demand, e-mail, or Internet access, as well as other future applications. In addition to expanded memory, the Explorer 3100 DHCT includes the option for an integrated Analog Descrambler and an option for two IEEE 1394 Firewire ports with 5C copy protection. The Explorer 3100 DHCT also supports both digital broadcast services and applications. Finally, the Explorer 3100 DHCT includes industry standards support (OpenCable, CableLabs/SCTE, DAVIC), which makes this terminal ready for future applications and preserves its longevity.

### Features

 Reverse Path Data Transmitter
 • All

 co
 • Er

 br
 • Tr

 MPEG 2 MP@ML Digital Video Decompression
 • All

Dolby<sup>®</sup> AC3<sup>®</sup> and Musicam Digital Audio PowerKEY<sup>®</sup> Conditional Access System

PowerTV<sup>®</sup> Operating System with HTML Client Engine

- Allows instantaneous, IP-based, "real-time" two-way communication between the DHCT and the headend
- Enables MSO to offer two-way services such as Internet browsing, video-on-demand, and e-mail
- Transmits at up to 1.544 Mbps
- Allows transport and compression of audio and video
- Includes 4 MB of DRAM dedicated to MPEG decompression and graphics
- Provides video resolution up to 720 x 480 pixels
- · Supports these digital audio standards
- Secures digital services using an encryption algorithm, from RSA, that mathematically matches pairs of keys
- Provides Application Programming Interfaces (APIs) that enable client applications to utilize the resources managed by the operating system for delivering broadcast and interactive services
- · Allows upgrades using a network download

## **Explorer 3100 Digital Home Communications Terminal**

Features, continued

**Enhanced Graphics Engine** 

Powerful 32-bit RISC Processor

24 MB Total Memory

64 and 256 ITU Annex B QAM Support Analog and Digital Service Tuner

Both Internal Security Microprocessor and Smartcard Slot

Macrovision Copy Protection

Universal Serial Bus (USB) Interface

**BTSC/SAP Decoder** 

S/PDIF Digital Audio Interface Recessed Cavity for Custom Logo Optional Ethernet 10BaseT Interface

Optional Analog Descrambling

Optional Dual IEEE 1394 Interface

- Displays up to 65,000 colors simultaneously
- Enables high-resolution graphics (640 x 480 pixels) while simultaneously scaling MPEG 2 video
- Includes 130 MHz clock speed to perform tasks and applications quickly
- Includes 16 MB CPU DRAM
- Includes 4 MB Graphics DRAM
- Includes 4 MB Flash EPROM
- Supports standard for QAM delivery and demodulation
- Allows both non-scrambled analog and MPEG 2 digital channels to be tuned and displayed
- Provides an internal method for conditional access as well as an external ability to upgrade the security, if required
- Supports the capability for the MSO to restrict unauthorized subscribers from copying digital services such as pay-per-view and video-on-demand
- Supports interconnection with home consumer devices such as printers.
- Provides USB interface on the front panel
- Provides stereo sound on analog channels using the baseband left and right audio outputs
- Supports interconnection with Dolby Digital™ Receivers
- · Allows cable operators to brand the DHCT
- Supports interconnection to other Ethernet-controlled devices such as personal computers
- Supports the descrambling and audio demasking of scrambled analog channels allowing the Explorer DHCT to coexist in a network with analog terminals
- Supports Scientific-Atlanta, Zenith, and selected Motorola analog scrambling technologies
- Includes 2 ports with 5C copy protection

Specifications, features and product availability are subject to change without notice.



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Scientific-Atlanta, Inc. 1-800-722-2009 or 770-903-6900 www.scientificatlanta.com

Part Number 740313 Rev. B February 2001



# Explorer<sup>®</sup> 2200 Digital Interactive Set-top

Subscriber Networks

### Description

With the release of the Explorer<sup>®</sup> 2200 Digital Interactive Set-top, Scientific-Atlanta offers a faster RISC<sup>(1)</sup> processor to optimize interactivity on the cable operator's digital network.

The Explorer 2200 Set-top features a 32-bit, 166 MHz processor and a reverse-path DAVIC transmitter capable of sending and receiving data at speeds up to 1.544 Mbps. With its fast response time, the Explorer 2200 Set-top provides subscribers with instant, real-time feedback to remote control "clicks" or requests for on-demand content.



Overall size of the Explorer 2200 Set-top is 30 percent smaller than its predecessor, resulting in reduced shipping and warehousing costs for the cable operator.

Total available memory is 16 MB, which provides support for video-on-demand (VOD), subscription VOD (SVOD), e-mail, chat services, Internet access, and other applications such as games.

The Explorer 2200 Set-top also complies with OpenCable, CableLabs/SCTE, and DAVIC standards to ensure broad-based applications support and scalability.

(1) The Reduced Instruction Set Computer (RISC) processor takes advantage of simple instruction sets and uniform encoding to improve performance.

### Features

Powerful 166 MHz, 32-bit RISC Processor	Delivers fast system response time
16 MB Total Memory	<ul> <li>8 MB CPU DRAM</li> <li>4 MB Graphics DRAM</li> <li>4 MB Flash EPROM</li> </ul>
Reverse Path DAVIC Data Transmitter	<ul> <li>Allows instantaneous, IP-based, real-time two-way communication between the Explorer 2200 Set-top and the headend</li> <li>Drives interactive services such as Internet browsing, VOD, SVOD, e-mail, and chat</li> <li>Transmits and receives up to 1.544 Mbps</li> </ul>
Universal Serial Bus (USB) Interface	<ul> <li>Offers quick and easy connectivity to digital peripherals such as Web printers and cameras</li> </ul>
Small Footprint	30% reduction in overall size compared with predecessor, the Explorer 2100 DHCT

## Explorer<sup>®</sup> 2200 Digital Interactive Set-top

Dolby<sup>®</sup> AC-3<sup>®</sup> and Musicam Digital Audio Support

PowerKEY<sup>®</sup> Conditional Access System

PowerTV® Operating System with HTML Client Engine

Enhanced Graphics Engine

#### 64 and 256 ITU Annex B QAM Support

Analog and Digital Service Tuner

Both Internal Security Microprocessor and Smart Card Slot

Macrovision<sup>®</sup> Copy Protection Support (licensing not included)

MPEG-2 MP@ML Digital Video Decompression

BTSC/SAP Decoder

S/PDIF Digital Audio Interface

Name Branding

- Provides capability to distribute content in these high-quality audio formats
- Secures digital services using an RSA encryption algorithm that mathematically matches pairs of keys
- Offers extensive operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications
- Allows upgrades using a network download
- Displays up to 65,000 colors simultaneously
- Enables high-resolution graphics (640 x 480 pixels) while simultaneously scaling MPEG-2 video
- Supports standards-based QAM delivery and demodulation
- Allows both non-scrambled analog and MPEG-2 digital channels to be tuned and displayed
- Provides hardware-assisted conditional access options with capability to upgrade the security, if needed
- Activation allows cable operators to add another layer of copy protection software–Macrovision–that restricts unauthorized subscribers from copying digital transmissions such as VOD and SVOD
- Allows high-volume transport and decompression of audio and video
- Powered by 4 MB of onboard dedicated DRAM to ensure fast decompression of MPEG and graphics
- Provides video resolution up to 720 x 480 pixels
- Enables stereo sound on analog channels using the baseband left and right audio outputs
- Supports Dolby Digital<sup>™</sup> technology contained in interconnected audio receivers
- A section of the Explorer 2200 Set-top faceplate is reserved for prominent display of the cable operator's name and/or logotype

Ordering & Availability	
Standard Features:         Digital tuner, high-quality         Analog tuner, high-quality         166 MIPS         8 MB applications DRAM         Front panel USB port         Interactive navigation buttons - complete set on front panel	Part Number: • 745622 Optional Features: • Expanded memory Available: • Scheduled for release March 2002

Specifications, features, and product availability are subject to change without notice.



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Scientific Atlanta

Scientific-Atlanta, Inc. 1-800-722-2009 or 770-236-6900 www.scientificatlanta.com

Part Number 752062 Rev A March 2002



### ESTIMATED SPECIFICATIONS

``odel: XBR10-10/66P23/26DF

Prep. By C.L.

<u>6/8/0711:</u> <u>16:37</u> <u>AM6/8/0</u> <u>711:15:58</u> <u>AM6/8/0</u> <u>711:15:57</u> <u>AM</u>

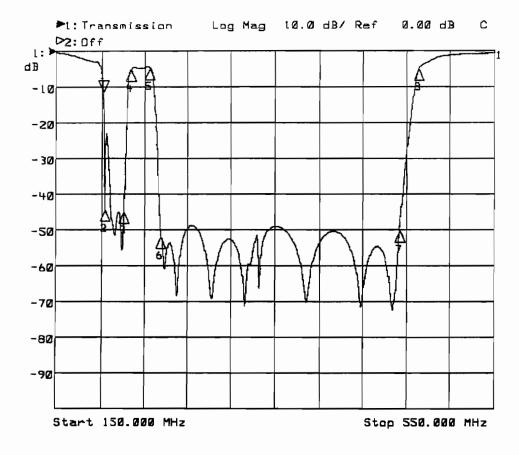
Date:

Deleted: 12/2/05

Response: REV 2

Minimum operating frequency: 1 GHz

Marker #	Freq. Desc.	Freq. (MHz)	Nominal Loss (dB)	
1	9 aud	191.75	12	
2	10 vid	193.25	45	
3	13 vid	211.25	45	
4	23 vid	217.25	5.0	
5	26 vid	235.25	5.0	
6	27 aud	245.75	53	
7	64 vid	463.25	50	
8	67 vid	481.25	5.0	



Page 1 of 1

.



## TRAP SPECIFICATIONS

odel: CBR-2/78

Prep. By T.H.

<u>6/8/0711:</u> <u>18:08</u> <u>AM6/8/0</u> <u>711:17:40</u> <u>AM6/8/0</u> <u>711:17:39</u> <u>AM</u>

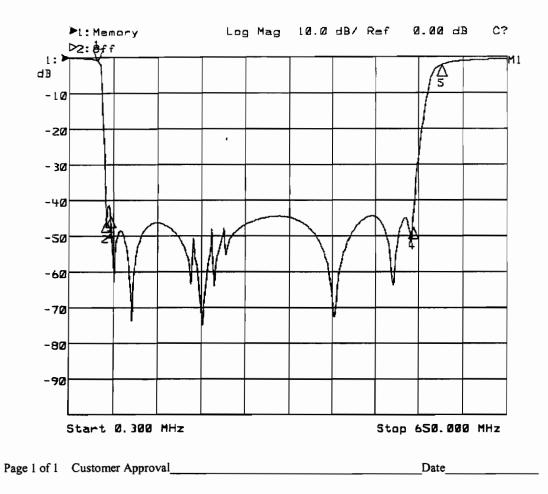
Date:

Deleted: 11/29/04

Passband insertion loss: 1 dB

Minimum operating frequency: 1 GHz

Freq. Desc.	Freq. (MHz)	Typical Loss (dB)	Limits (dB)
	42.00	1.0	2.0 max.
2 vid.	55.25	46	30 min.
3 vid.	61.25	45	40 min.
72 vid.	511.25	48	40 min.
79 vid.	553.25	2.2	4.0 max.
	2 vid. 3 vid. 72 vid.	42.00           2 vid.         55.25           3 vid.         61.25           72 vid.         511.25	42.00         1.0           2 vid.         55.25         46           3 vid.         61.25         45           72 vid.         511.25         48



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# **TRAP SPECIFICATIONS**

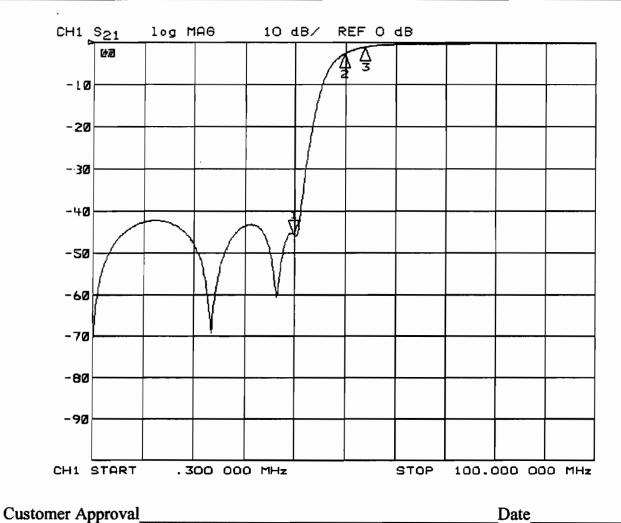
Model: SHP3-50

Prep. By B.O. Date: 08/01/06

Response: Actual

Minimum operating frequency: 1 GHz

Marker #	Freq. Desc.	Freq. Mhz	Typ. Loss(dB)	Limits(dB)
1		40	45	40 min.
2		50	2.8	3.5 max.
3		54	1.2	1.5 max.



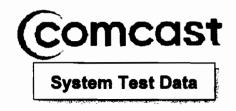
# (comcast

Alexandria, Virginia Winter 2007 Proof of Performance

# (comcast

Comcast of Alexandria, VA performed an FCC Proof-of-Performance test during the period of January 1<sup>st</sup> through February 28<sup>th</sup>, 2007.

The purpose of the test was to adhere to FCC requirements as set forth in the Federal Code of Regulations, Subpart K, Sections 76.601 and 76.605. The documents that follow are the results of the tests, as well as the requirements set forth by the FCC.



System: Comcast Location: Alexandria, Va.

System Community ID#: VA0220

Physical System ID#: 004923

Statement of Qualifications

### Kelvin Webb: Technical Operations Manager

Experince: Kelvin has 21 years professional experience in the communications field, including, headend operations, fiber, systems network engineering and design. Experience includes over 11 years management of diverse projects and staff sizes varying from 18-20. For over four years I have been the Technical Operations Manager in the Northern Virginia Area.

### Greg Harmon Title: Senior System Technician

Experience: Greg has been in CATV for 25 years, during which he has been a Service Technician for 3 years and a System Technician for 18 years. He has completed the NCTI Senior Master Technician program. He has participated in 21 FCC Proof of Performance tests. SCTE Member since 1989.

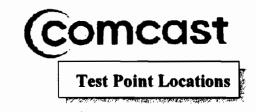
### Previn Coe Title: System Technician

Experience: Previn has been a CATV Technician for 8 Years During witch he has been a Quality Control Technician for 1 year then a Service Technician for 1 year then promoted to System Technician for the last 6 years. He as completed the NCTI Installer and Service Technician Courses. He has participated in 11 FCC Proof of Performance tests.



Due to new Services and Analog Digital Simulcasting requirements channels 24,40,58,75,78,99 have been removed from the Analog line-up.

The Test channel 58 has been changed to 56.



Test Point #1 85 S. Bragg St.

Test Point #2 Tower Ct. & Whitting St.

Test Point #3 1 N. Donelson St.

Test Point #4 Kenwood St. & Fern St.

Test Point #5 1121 Allison St.

Test Point #6 901 N. Kemper St. Test Point #7 528 Bellvue Pl.

Test Point #8 5109 Gardner Dr.

Test Point #9 418 Bashford Ln.

Test Point #10 5465 Colfax Ave.

Test Point #11 2357 N early St.

Test Point #12 3900 Wheeler Ave.



Equipment	Manufacturer	Model	Serial #	Last cal
Cybertek Examiner	Com Sonics	101129-001	N/A	N/A
Spectrum Analyzer	Hewlett-Packard	8591C	3916A04384	10/17/06
Tunable Filter	Trilithic	<b>VF-4-88</b>	9330002	N/A
Pre-Amplifier	Hewlett-Packard	85905A	6093-0551	N/A
Signal Level Meter	Acterna	SDA-5000	0413408	10/13/06
Converter Box	Scientific Atlanta	8511300	GF505BFDN	N/A

### REGAL® RMT2000 1 GHz MULTI-TAPS



RMT2002W-RF-XX (XX Denotes	-									
1 GHz, 2-Way RF Only Wide Body	y Multi-	Тар						_		
Return Loss (In/Out/Tap, Min.)										
Frequency (MHz)	5-10	11-2		1-400	401-500	501-	600	601-700	701-9	
Return Loss (dB)	16	18	1		18	17		16	16	16
RMT2002W-RF-4 (dB)	16	18	1	8	18	17		16	16	16
Insertion Loss (Max.)										
Tap Value (dB)	4	8	11	14	17	20	23	26	29	32
5-10 MHz	Т	3.5	1.7	1.2	0.7	0.7	0.7	0.7	0.7	0.7
11-50 MHz	Т	3.5	1.6	1.2	0.7	0.7	0.7	0.7	0.7	0.7
51-100 MHz	Т	3.7	1.6	1.2	0.7	0.7	0.7	0.7	0.7	0.7
101-300 MHz	Т	3.8	1.7	1.3	0.8	0.7	0.7	0.7	0.7	0.7
301-400 MHz	T	3.9	1.9	1.6	1.0	1.0	0.8	0.8	0.8	0.8
401-500 MHz	T	3.9	2.1	1.6	1.0	1.0	0.8	0.8	0.8	0.8
501-600 MHz	Т	4.2	2.2	1.6	1.1	1.0	0.8	0.8	0.8	0.8
601-700 MHz	Т	4.5	2.4	1.8	1.3	1.1	0.9	0.9	0.9	0.9
701-800 MHz	Т	4.6	2.6	2.1	1.4	1.2	1.1	1.1	1.1	1.1
801-900 MHz	Т	4.7	2.8	2.4	1.6	1.3	1.3	1.3	1.3	1.3
901-1000 MHz	T	4.8	3.3	2.9	1.9	1.6	1.6	1.6	1.6	1.6
Tap-to-Tap Isolation (Min.)										
Frequency (MHz)	5-10	11-2	0 2	1-400	401-500	501-	600	601-700	701-9	901-10
Tap-to-Tap (dB)	18	23	2	5	25	23		21	21	18
Tap Loss Tolerance	···· ····									
,	4	8	11	14	17	20	23	26	29	32
Tap Value (dB) 5-500 MHz	4 ±1.0	8 ±1.5	11 ±1.5	14 ±1.5	17 ±1.5	20 ±1.5	23 ±1.5		29 ±1.5	32 ±1.5
Tap Value (dB) 5-500 MHz			±1.5	±1.5			±1.	5 ±1.5		
Tap Value (dB) 5-500 MHz 501-600 MHz	±1.0	±1.5			±1.5	±1.5		5 ±1.5 5 ±1.5	±1.5	±1.5
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz	±1.0 ±1.3	±1.5 ±1.5	±1.5 ±1.5	±1.5 ±1.5	±1.5 ±1.5	±1.5 ±1.5	±1.5	5 ±1.5 5 ±1.5 5 ±1.5	±1.5 ±1.5	±1.5 ±1.5
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz	±1.0 ±1.3 ±1.7	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	5 ±1.5 5 ±1.5 5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.)	±1.0 ±1.3 ±1.7	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	5 ±1.5 5 ±1.5 5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5
Tap Value (dB)	±1.0 ±1.3 ±1.7 ±2.0	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.4 ±1.4 ±1.4 ±1.4	$5 \pm 1.5$ $5 \pm 1.5$ $5 \pm 1.5$ $3 \pm 1.8$	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±2.0
Tap Value (dB)           5-500 MHz           501-600 MHz           601-900 MHz           901-1000 MHz           Output-to-Tap Isolation (Min.)           Tap Value (dB)           5-10 MHz	±1.0 ±1.3 ±1.7 ±2.0	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	$\pm 1.5$ $\pm 1.5$ $\pm 1.5$ $\pm 1.8$ 20	±1. ±1. ±1. ±1. 23	$5 \pm 1.5$ $5 \pm 1.5$ $5 \pm 1.5$ $3 \pm 1.8$ 26	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±2.0
Tap Value (dB)           5-500 MHz           501-600 MHz           601-900 MHz           901-1000 MHz           Output-to-Tap Isolation (Min.)           Tap Value (dB)           5-10 MHz           11-50 MHz	±1.0 ±1.3 ±1.7 ±2.0 4 T	±1.5 ±1.5 ±1.5 ±1.8 8 18 25	±1.5 ±1.5 ±1.5 ±1.8 11 18 25	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8 17 30 30	±1.5 ±1.5 ±1.5 ±1.8 20 30	±1.1 ±1.2 ±1.2 ±1.2 ±1.2 23 35 37	$5 \pm 1.5 \\ 5 \pm 1.5 \\ 5 \pm 1.5 \\ 3 \pm 1.8 \\ 26 \\ 38 \\ 40 \\ 38 \\ 40 \\ 38 \\ 40 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30$	±1.5 ±1.5 ±1.5 ±1.8 29 40	±1.5 ±1.5 ±1.5 ±2.0 32 42 43
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz <b>Output-to-Tap Isolation (Min.)</b> Tap Value (dB) 5-10 MHz 11-50 MHz 51-300 MHz	±1.0 ±1.3 ±1.7 ±2.0 4 T T	±1.5 ±1.5 ±1.5 ±1.8 8 18 25 25	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8 14 20 20 23	±1.5 ±1.5 ±1.5 ±1.8 17 30 30 30	±1.5 ±1.5 ±1.5 ±1.8 20 30 30	±1.2 ±1.2 ±1.2 ±1.2 23 35 37 35	$5 \pm 1.5 \\ 5 \pm 1.5 \\ 5 \pm 1.5 \\ 3 \pm 1.8 \\ 26 \\ 38 \\ 40 \\ 35 \\ 35 \\ 35 \\ 35 \\ 35 \\ 35 \\ 35 \\ 3$	±1.5 ±1.5 ±1.5 ±1.8 29 40 42	±1.5 ±1.5 ±1.5 ±2.0 32 42
Tap Value (dB)           5-500 MHz           501-600 MHz           601-900 MHz           901-1000 MHz           Output-to-Tap Isolation (Min.)           Tap Value (dB)           5-10 MHz           11-50 MHz           301-400 MHz	±1.0 ±1.3 ±1.7 ±2.0 4 T T T	±1.5 ±1.5 ±1.5 ±1.8 8 18 25 25 23	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8 17 30 30 30 30 30	±1.5 ±1.5 ±1.5 ±1.8 20 30 30 30	±1.1 ±1.2 ±1.2 ±1.2 ±1.2 23 35 37	$5 \pm 1.5 \\ 5 \pm 1.5 \\ 5 \pm 1.5 \\ 8 \pm 1.8 \\ 26 \\ 38 \\ 40 \\ 35 \\ 34 \\ 34$	±1.5 ±1.5 ±1.5 ±1.8 29 40 42 42	±1.5 ±1.5 ±1.5 ±2.0 32 42 43 44 44
Tap Value (dB)         5-500 MHz         501-600 MHz         601-900 MHz         901-1000 MHz <b>Output-to-Tap Isolation (Min.)</b> Tap Value (dB)         5-10 MHz         11-50 MHz         301-400 MHz	±1.0 ±1.3 ±1.7 ±2.0 4 T T T T T	±1.5 ±1.5 ±1.5 ±1.8 8 18 25 25 23 22	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8 14 20 20 23 21	±1.5 ±1.5 ±1.5 ±1.8 17 30 30 30	±1.5 ±1.5 ±1.5 ±1.8 20 30 30 30 30 30	±1. ±1. ±1. ±1. 23 35 37 35 33	$5 \pm 1.5 \\ 5 \pm 1.5 \\ 5 \pm 1.5 \\ 3 \pm 1.8 \\ 26 \\ 38 \\ 40 \\ 35 \\ 35 \\ 35 \\ 35 \\ 35 \\ 35 \\ 35 \\ 3$	±1.5 ±1.5 ±1.5 ±1.8 29 40 42 42 42	±1.5 ±1.5 ±1.5 ±2.0 32 42 43 44
Tap Value (dB)           5-500 MHz           501-600 MHz           601-900 MHz           901-1000 MHz           Output-to-Tap Isolation (Min.)           Tap Value (dB)           5-10 MHz           11-50 MHz           301-400 MHz	±1.0 ±1.3 ±1.7 ±2.0 4 T T T T T T T	±1.5 ±1.5 ±1.5 ±1.8 8 18 25 25 23	±1.5 ±1.5 ±1.5 ±1.8 11 18 25 25 23 22	±1.5 ±1.5 ±1.5 ±1.8 14 20 20 23 21 20	±1.5 ±1.5 ±1.5 ±1.8 17 30 30 30 30 30 30 30	±1.5 ±1.5 ±1.5 ±1.8 20 30 30 30 30 30 30 30	±1. ±1. ±1. ±1. 23 35 37 35 33 33 33	$5 \pm 1.5 \\ 5 \pm 1.5 \\ 5 \pm 1.5 \\ 3 \pm 1.8 \\ 26 \\ 38 \\ 40 \\ 35 \\ 34 \\ 33 \\ 33$	±1.5 ±1.5 ±1.5 ±1.8 29 40 42 42 42 42 40	±1.5 ±1.5 ±1.5 ±2.0 32 42 43 44 44 44 42

Specifications are subject to change without notice.

### REGAL® RMT2000 1 GHz MULTI-TAPS



RMT2004W-RF-XX (XX Denotes		-									· · · · · · · ·
1 GHz, 4-Way RF Only Wide Bod Return Loss (In/Out/Tap, Min.)	y muna-	ар									
Frequency (MHz)	5-10	11-2	0 2	1-400	401-500	501-	600	601-700	701-9		901-1000
Return Loss (dB)	16	18	<u>.0 2</u> 1		18	17	000	16	16	00	16
RMT2004W-RF-8 (dB)	16	18	1	-	18	17		16	16		16
RMT2004W-RF-14 (dB)	16	18	<u> </u>		18	17		16	16		16
RIVI12004W*R[*14 (UD)	10	10		0	10			10	10		10
Insertion Loss (Max.)											
Tap Value (dB)	4	8	11	14	17	20	23	26	29	32	
5-10 MHz	N/A	T	3.3	1.7	1.3	0.9	0.8	0.7	0.7	0.7	
11-50 MHz	N/A	Т	3.5	1.6	1.2	0.8	0.7	0.7	0.7	0.7	
51-100 MHz	N/A	Т	3.7	1.9	1.4	1.1	0.8	0.7	0.7	0.7	
101-300 MHz	N/A	T	3.7	1.9	1.4	1.1	0.8	0.8	0.7	0.7	
301-400 MHz	N/A	T	4.0	2.0	1.6	1.3	1.0	0.8	0.8	0.8	
401-500 MHz	N/A	Т	4.0	2.1	1.6	1.3	1.0	0.8	0.8	0.8	
501-600 MHz	N/A	T	4.2	2.2	1.7	1.3	1.0	0.8	0.8	0.8	
601-700 MHz	N/A	т	4.4	2.5	2.0	1.3	1.1	0.9	0.9	0.9	
701-800 MHz	N/A	т	4.6	2.8	2.3	1.5	1.2	1.1	1.1	1.1	
801-900 MHz	N/A	Т	4.6	3.1	2.7	1.7	1.4	1.3	1.3	1.3	
901-1000 MHz	N/A	Т	4.8	3.6	3.0	2.1	1.6	1.6	1.6	1.6	
Tap-to-Tap Isolation (min.)											
Frequency (MHz)	5-10	11-2		1-400	401-500	501-	600	601-700	701-9	00	901-100
Tap-to-Tap (dB)	20	23	2		25	25		21	21		19
RMT2004W-RF-8 (dB)	18	23	2	5	25	23		21	21		19
RMT2004W-RF-14 (dB)	18	20	2	0	20	20		20	20		18
Tap Loss Tolerance										<b>.</b>	
Tap Value (dB)	4	8	11	14	17	20	23	26	29	32	
5-500 MHz	N/A	±1.0	±1.5	±1.5	±1.5	±1.5	±1.5		±1.5	±2.	0
	N/A	±1.3	±1.5		±1.5	±1.5	±1.5		±1.5	±2.	-
501-600 MHz				±1.5					±1.5	±2.	
501-600 MHz 601-900 MHz	N/A	±1.7	±1.5	<u>±1.5</u> ±1.5	±1.5	±1.5	±1.5	5 ±1.5			
501-600 MHz 601-900 MHz 901-1000 MHz		//	±1.5 ±1.8			±1.5 ±1.8	±1.5 ±1.8		±1.8	±2.	<u> </u>
601-900 MHz 901-1000 MHz	N/A	±1.7		±1.5	±1.5				±1.8	±2.	
601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.)	N/A N/A	±1.7 ±2.0	±1.8	±1.5 ±1.8	±1.5 ±1.8	±1.8	±1.8	5 ±1.8			
601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB)	N/A N/A 4	±1.7 ±2.0	±1.8	±1.5 ±1.8	±1.5 ±1.8	±1.8 20	±1.8	26 ±1.8	29	32	
601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz	N/A N/A 4 N/A	±1.7 ±2.0 8 T	±1.8 11 18	±1.5 ±1.8 14 20	±1.5 ±1.8 17 25	±1.8 20 33	±1.8	26 38	29 40	32 42	
601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz 11-50 MHz	N/A N/A 4 N/A N/A	±1.7 ±2.0 8 T T	±1.8 11 18 25	±1.5 ±1.8 14 20 20	±1.5 ±1.8 17 25 25	±1.8 20 33 33	±1.8	26 38 40	29 40 42	32 42 43	<u> </u>
601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz 11-50 MHz 51-300 MHz	N/A N/A 4 N/A N/A N/A	+1.7 +2.0 8 T T T T	±1.8 11 18 25 25	±1.5 ±1.8 14 20 20 23	±1.5 ±1.8 17 25 25 23	±1.8 20 33 33 33	±1.8 23 35 37 35	26 38 40 35	29 40 42 40	32 42 43 42	<u> </u>
601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz 11-50 MHz 51-300 MHz 301-400 MHz	N/A N/A 4 N/A N/A N/A	±1.7 ±2.0 8 T T T T	±1.8 11 18 25 25 25 25	±1.5 ±1.8 14 20 20 23 21	±1.5 ±1.8 17 25 25 23 23	±1.8 20 33 33 33 31	±1.8 23 35 37 35 32	26 38 40 35 34	29 40 42 40 40	32 42 43 42 42 42	
601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz 11-50 MHz 51-300 MHz 301-400 MHz 401-500 MHz	N/A N/A 4 N/A N/A N/A N/A	±1.7 ±2.0 8 T T T T T	±1.8 11 18 25 25 25 25 23	±1.5 ±1.8 14 20 20 23 21 20	±1.5 ±1.8 17 25 25 23 23 23 21	±1.8 20 33 33 33 31 30	±1.8 23 35 37 35 32 30	26 38 40 35 34 33	29 40 42 40 40 38	32 42 43 42 42 42 40	
601-900 MHz	N/A N/A 4 N/A N/A N/A	±1.7 ±2.0 8 T T T T	±1.8 11 18 25 25 25 25	±1.5 ±1.8 14 20 20 23 21	±1.5 ±1.8 17 25 25 23 23	±1.8 20 33 33 33 31	±1.8 23 35 37 35 32	26 38 40 35 34	29 40 42 40 40	32 42 43 42 42 42	

Specifications are subject to change without notice.

### REGAL® RMT2000 1 GHz MULTI-TAPS



RMT2008-RF-XX (XX Denotes Ta	p Value	)							_		
1 GHz, 8-Way RF Only Wide Bod	y Multi-	Тар									
Return Loss (In/Out/Tap, Min.)											
Frequency (MHz)	5-10	11-2	20 2	1-400	401-500	501-600		601-700	701-900		901-1000
Return Loss (dB)	16	18	1	8	18	17		16	16		16
RMT2008-RF-11 (dB)	16	18	1	8	18	17		16	16	_	16
Insertion Loss (Max.)											
Tap Value (dB)	4	8	11	14	17	20	23	26	29	32	
5-10 MHz	N/A	N/A	Т	3.5	1.8	1.2	1.0	0.9	0.7	0.7	
11-50 MHz	N/A	N/A	Т	3.5	1.7	1.1	0.9	0.9	0.6	0.6	
51-100 MHz	N/A	N/A	Т	3.8	1.9	1.2	0.9	0.9	0.7	0.7	
101-300 MHz	N/A	N/A	T	3.8	2.0	1.3	1.0	0.9	0.9	0.9	
301-400 MHz	N/A	N/A	T	3.9	2.1	1.4	1.1	1.0	0.9	0.9	
401-500 MHz	N/A	N/A	Т	4.2	2.2	1.6	1.2	1.1	1.0	1.0	
501-600 MHz	N/A	N/A	Т	4.4	2.3	1.7	1.5	1.3	1.1	1.1	
601-700 MHz	N/A	N/A	T	4.5	2.5	1.8	1.5	1.3	1.1	1.1	
701-800 MHz	N/A	N/A	T	4.6	3.0	2.0	1.5	1.3	1.3	1.3	
801-900 MHz	N/A	N/A	T	4.7	3.2	2.4	1.8	1.4	1.4	1.4	
901-1000 MHz	N/A	N/A	T	4.9	3.6	2.9	2.1	1.7	1.7	1.7	
Tap-to-tap isolation (Min.)											_
Frequency (MHz)	5-10	11-2	20 2	1-400	401-500	501-	600	601-700	701-900		901-100
Tap-to-Tap (dB)	18	23	2	3	23	20		18	18		18
Tap Loss Tolerance		÷									
Tap Loss Tolerance	4	8	11	14	17	20	23	26	29	32	
Tap Value (dB)	4 N/A	8 N/A	11 ±1.0	14 ±1.5	17 ±1.5	20 ±1.5	23 ±1.5		29 ±1.5	32 ±1.5	;
								±1.5			
Tap Value (dB) 5-500 MHz 501-600 MHz	N/A	N/A	±1.0	±1.5	±1.5	±1.5	±1.5	±1.5 ±1.5	±1.5	±1.5	}
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz	N/A N/A	N/A N/A	±1.0 ±1.3	±1.5 ±1.5	±1.5 ±1.5	±1.5 ±1.5	±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5	±1.5 ±1.8	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz	N/A N/A N/A	N/A N/A N/A	±1.0 ±1.3 ±1.8	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.8 ±2.0	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.)	N/A N/A N/A	N/A N/A N/A	±1.0 ±1.3 ±1.8	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.5 ±1.5	±1.5 ±1.8 ±2.0	<u>}</u>
Tap Value (dB) 5-500 MHz	N/A N/A N/A N/A	N/A N/A N/A N/A	±1.0 ±1.3 ±1.8 ±2.3	±1.5 ±1.5 ±1.5 ±2.3	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.8 ±2.0 ±2.3	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz	N/A N/A N/A N/A	N/A N/A N/A N/A 8	±1.0 ±1.3 ±1.8 ±2.3	±1.5 ±1.5 ±1.5 ±2.3	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8 20	±1.5 ±1.5 ±1.8 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.8 ±2.0 ±2.3	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz <b>Output-to-Tap Isolation (Min.)</b> Tap Value (dB) 5-10 MHz 11-50 MHz	N/A N/A N/A N/A 4 N/A	N/A N/A N/A N/A 8	±1.0 ±1.3 ±1.8 ±2.3 11 T	±1.5 ±1.5 ±1.5 ±2.3	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.8 20 26	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8 26 35	±1.5 ±1.5 ±1.5 ±1.8 29 38	±1.5 ±1.8 ±2.0 ±2.3 32 40	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB)	N/A N/A N/A N/A 4 N/A N/A	N/A N/A N/A N/A 8 N/A N/A	±1.0 ±1.3 ±1.8 ±2.3 11 T T	±1.5 ±1.5 ±1.5 ±2.3	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.5 ±1.8 20 26 26	±1.5 ±1.5 ±1.8 ±1.8 23 35 35	±1.5 ±1.5 ±1.5 ±1.8 26 35 37	±1.5 ±1.5 ±1.5 ±1.8 29 38 40	±1.5 ±1.8 ±2.0 ±2.3 32 40 42	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz 11-50 MHz 51-300 MHz 301-400 MHz	N/A N/A N/A N/A 4 N/A N/A	N/A N/A N/A N/A 8 N/A N/A N/A	±1.0 ±1.3 ±1.8 ±2.3 11 T T T	±1.5 ±1.5 ±1.5 ±2.3 14 18 25 25	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.8 20 26 26 23	±1.5 ±1.5 ±1.5 ±1.8 23 35 35 35 35	±1.5 ±1.5 ±1.5 ±1.8 26 35 37 35	±1.5 ±1.5 ±1.5 ±1.8 29 38 40 35	±1.5 ±1.8 ±2.0 ±2.3 32 40 42 42	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz Output-to-Tap Isolation (Min.) Tap Value (dB) 5-10 MHz 11-50 MHz 51-300 MHz 301-400 MHz 401-500 MHz	N/A N/A N/A N/A 4 N/A N/A N/A	N/A N/A N/A N/A 8 N/A N/A N/A N/A	±1.0 ±1.3 ±1.8 ±2.3 11 T T T T T	±1.5 ±1.5 ±1.5 ±2.3 14 18 25 25 25	±1.5 ±1.5 ±1.5 ±1.8	±1.5 ±1.5 ±1.8 20 26 26 23 23	±1.5 ±1.5 ±1.8 23 35 35 35 35 35	±1.5 ±1.5 ±1.5 ±1.8 26 35 37 35 33	±1.5 ±1.5 ±1.5 ±1.8 29 38 40 35 34	±1.5 ±1.8 ±2.0 ±2.3 32 40 42 42 42	<u>}</u>
Tap Value (dB) 5-500 MHz 501-600 MHz 601-900 MHz 901-1000 MHz <b>Output-to-Tap Isolation (Min.)</b> Tap Value (dB) 5-10 MHz 11-50 MHz 51-300 MHz	N/A N/A N/A N/A 4 N/A N/A N/A N/A	N/A N/A N/A N/A 8 N/A N/A N/A N/A N/A	±1.0 ±1.3 ±1.8 ±2.3 11 T T T T T T	±1.5 ±1.5 ±1.5 ±2.3 14 18 25 25 25 25 23	±1.5 ±1.5 ±1.5 ±1.8 17 20 20 23 21 20	±1.5 ±1.5 ±1.8 20 26 26 23 23 23 21	±1.5 ±1.5 ±1.5 ±1.8 23 35 35 35 35 35 33	±1.5 ±1.5 ±1.5 ±1.8 26 35 37 35 33 33 33	±1.5 ±1.5 ±1.5 ±1.8 29 38 40 35 34 33	±1.5 ±1.8 ±2.0 ±2.3 32 40 42 42 42 42 42	}

Specifications are subject to change without notice.



### C/N, CTB, CSO and HUM:

A 100' RG-6 drop was attached to a normal subscriber tap and connected to a Converter Box. A jumper was then connected from the Converter Box to the input of the pre-amp, which was connected to the RF input of the spectrum analyzer. The measurements were done using the Cybertek Examiner test gear in the headend to perform testing without interrupting customer services. The Cybertek examiner either inserts a VITS or removes a line of video depending on the test being performed.

### 4.5 Audio Difference:

This measurement was made by the spectrum analyzer with the entire channel intact.

### **In-band Frequency Response:**

This test was done with the RG-6 drop connected to the converter box, which was connected to the RF input of the spectrum analyzer. At the headend, the Cybertek Examiner inserted the appropriate VITS.

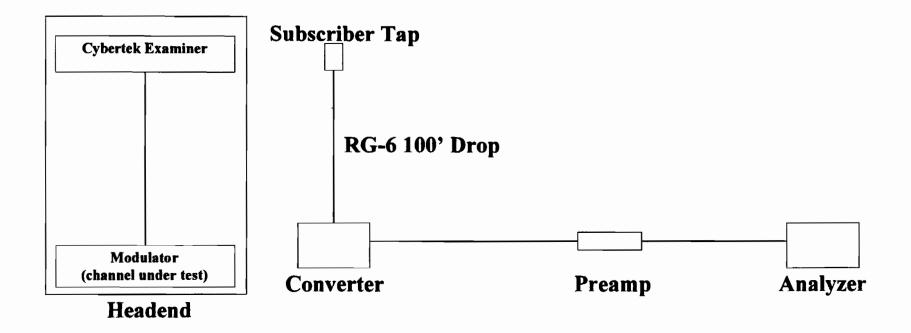
### 24-Hour Level Test:

This test used the 100' RG-6 drop attached to the RF input of a Wavetek SDA5000 signal level meter.

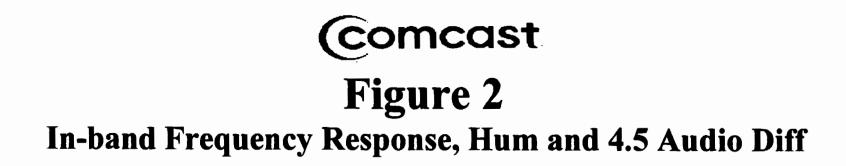
### **Headend** Color Test

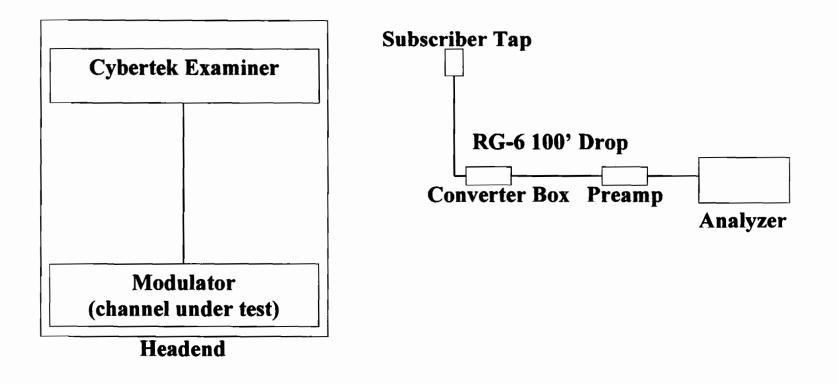
These tests were conducted with a VITS inserter connected to the modulator under test using the FCC composite test signal. A jumper was then run from the headend test point to a signal down converter, which was connected to a precision demodulator. The video output of the precision demodulator was then connected to the video input on a VM700A. All color tests were done using the VM700A.

# Comcast Figure 1 C/N, CTB, CSO



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# Comcast Figure 3 24 Hour Level Test

Subscriber Tap

RG-6 100' Drop

**Signal Meter** 



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. All of Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

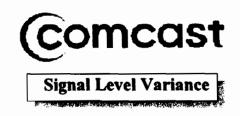
# Test Point #1

### CCOMCOST 85 S. Bragg St. Alexandria, VA FCC Distortion Measurements EQUIRMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

:

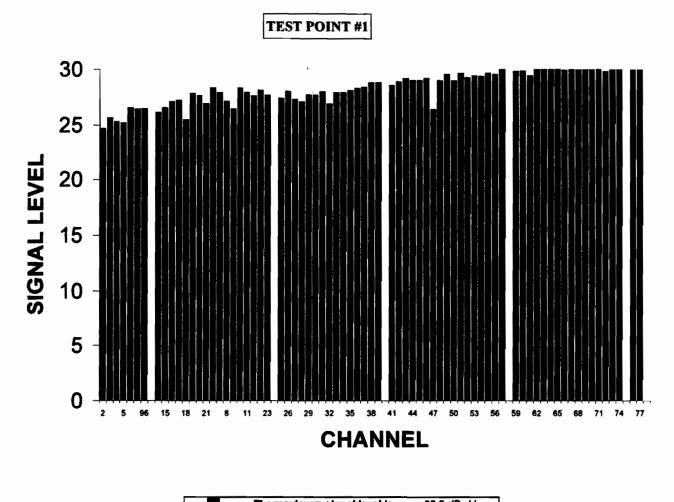
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	Date: 02/2	8/07	Time: 7:08	PM	Temp:40						
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF				
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max				
	2	1.9	0.9	69.1	66.6	<u>5</u> 2.1	4.5000				
	95	2	0.8	70.4	66.1	51.3	4.5000				
	21	1.3	0.7	68	60.4	52.3	4.5001				
	8	1.9	0.7	68.4	63.1	<u>52.</u> 4	4.5001				
	28	1.2	0.6	63.7	58.4	53.4	4.5000				
	32	1.1	0.7	62	64.2	51	4.5001				
	47	0.8	0.8	72.7	56	50.9	4.5000				
	56	1.1	0.7	65.2	61.1	49.8	4.5000				
	72	1.2	1.3	65.5	53.6	50.4	4.5000				
Minimum v	alues:	0.8	0.6	62.0	53.6	49.8	4.5000				
Maximum	values:	2	1.3	72.7	66.6	53.4	4.5001				



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum signal level is 32.2 dBm	/
The maximum adjacent channel level difference is	2.9 dBmV
The maximum level difference between the highest and lowest is	7.4 dBm∨
The maximum six month variance is	7.9 dBmV

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	Equipm	nent Us	<u>se</u> d:	100 0		VELEK	SDA-50	00 Sigr	_	el Mete	5/N 43	40571	Date: 02/03/07					
Run	1				2				3				4					
	Time: 0	1:14:38	_		Time: 0	7:15:00			Time: 1	3:47:45			Time: 19:38:28					
Temp	40				34					30			35					
Chan	Vid	Aud	Adjent		Vid	Aud	Adjent		Vid	Aud	Adjent		Vid	Aud	Adjent		24 HR	
	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI		Diff	Diff	Vid Diff	
2	24.7	11.6		4.7	25.0	11.8	- 10-	5.0	24.9	11.7	4.0	4.9	24.7	11.8		4.7	0.3	
3	25.7	14.8	1.0	5.7	26.0	14.9	1.0	6.0	25.9	14.8	1.0	5.9	25.8	14.9	1,1	5.8	0.3	
4	25.3	14.0	-0.4	5.3	25.8	14.2	-0.2	5.8	26.7	15.1	0.8	6.7	26.6	15.2	0.8	6.6	1.4	
5	25.2	13.4	-0.1	5.2	26.4	14.3	0.6	6.4	26.5	14.4	-0.2	6.5 6.7	25.9 26.7	14.3 15.5	-0.7	5.9 6.7	1.3 0.1	
6	26.6	15.3	1.4	6.6	26.7	15.2	0.3	6.7	26.7	15.2	0.2	6.2			0.8	5.9		
95 96	26.5 26.5	14.8 14.9	-0.1	6.5 6.5	26.2 26.8	13.9 14.9	0.5	6.2 6.8	26.2 26.8	13.8 14.6	0.6	6.8	<u>25.9</u> 26.6	13.8 14.9	-0.8	6.6	0.6	
99*1	20.0	14.9	0.0	0.5	20.0	14.8	0.0	0.0	20.0	14.0	0.0	0.0	20.0	14.8	0.1	0.0	0.3	
14	26.2	14.8	-0.4	6.2	26.6	15.1	-0.2	6.6	26.2	14.7	-0.8	6.2	26.3	15.0	-0.3	6.3	0.4	
15	26.6	13.7	0.4	6.6	26.8	13.6	0.2	6.8	27.0	13.7	0.8	7.0	26.6	13.7	0.3	6.6	0.4	
16	20.0	15.7	0.4	7.2	27.5	15.7	0.2	7.5	27.6	15.7	0.6	7.6	27.3	15.7	0.7	7.3	0.4	
17	27.3	14.7	0.0	7.3	27.5	14.7	0.0	7.5	27.6	14.8	0.0	7.6	27.3	14.7	0.0	7.3	0.3	
18	25.5	15.6	-1.8	5.5	28.4	15.7	0.9	7.9	28.4	15.5	0.8	7.9	28.0	15.5	0.7	7.5	2.9	
19	27.9	14.8	2.4	7.9	28.1	14.9	-0.3	7.6	28.1	14.8	-0.3	7.6	27.8	14.8	-0.2	7.3	0.3	
20	27.7	15.3	-0.2	7.7	28.1	15.4	0.0	7.6	28.0	15.4	-0.1	7.5	27.7	15.3	-0.1	7.2	0.4	
21	27.0	14.2	-0.7	7.0	27.1	14.0	-1.0	7.1	27.2	14.1	-0.8	7.2	27.0	14.1	-0.7	7.0	0.2	
22	28.4	15.5	1.4	7.4	28.1	15.1	1.0	7.1	28.4	15.4	1.2	7.4	28.1	15.2	1.1	7.1	0.3	
7	28.0	15.0	-0.4	7.0	27.4	14.3	-0.7	6.4	27.9	14.8	-0.5	6.9	28.0	15.0	-0.1	7.0	0.6	
8	27.2	14.3	-0.8	7.2	27.5	14.4	0.1	7.5	27.3	14.3	-0.6	6.8	27.3	14.4	-0.7	6.8	0.3	
9	26.5	13.8	-0.7	6.5	27.6	14.5	0.1	7.6	28.4	15.4	1.1	7.9	27.5	14.5	0.2	6.0	1.9	
10	28.4	15.7	1.9	7.4	28.6	15.7	1.0	7.6	28.5	15.8	0.1	7.5	28.4	15.7	0.9	7.4	0.2	
11	28.0	15.2	-0.4	6.8	28.3	15.2	-0.3	7.3	27.9	15.0	-0.6	6.5	28.2	15.3	-0.2	7.0	0.4	
12	27.7	14.9	-0.3	6.5	28.0	14.9	-0.3	6.9	27.8	14.9	-0.1	6.4	27.9	15.0	-0.3	6.7	0.3	
13	28.2	15.3	0.5	6.9	28.5	15.2	0.5	7.1	28.5	15.4	0.7	6.9	28.4	15.3	0.5	6.8	0.3	
23	27.8	15.3	-0.4	6.1	28.1	15.3	-0.4	6.3	27.9	15.4	-0.6	5.8	27.7	15.2	-0.7	<u>5</u> .7	0.4	
24*1																		
25	27.5	15.5	-0.6	7.0	27.7	15.5	-0.6	7.6	27.5	15.5	-0.6	6.8	27.5	15.5	0.0	6.8	0.2	
26	28.1	15.4	0.6	6.6	28.3	15.2	0.6	7.0	28.1	15.2	0.6	6.4	28.1	15.2	0.6	6.4	0.2	
27	27.4	14.3	-0.7	5.7	27.8	14.4	-0.5	6.0	27.7	14.6	-0.4	5.7	<u>27.</u> 7	14.4	-0.4	5.7	0.4	
28	27.2	15.1	-0.2	5.1	27.6	15.1	-0.2	5.6	27.4	15.2	-0.3	5.1	27.4	15.1	-0.3	5.3	0.4	
29	27.8	15.4	0.6	6.4	28.0	15.4	0.4	6,4	27.8	15.4	0.4	5.8	27.7	15.3	0.3	5.8	0.3	
30	27.8	15.2	0.0	6.1	28.2	15.3	0.2	6.4	27.8	15.2	0.0	5.8	27.9	15.2	0.2	6.0	0.4	
31	28.1	15.0	0.3	6.2	28.4	15.0	0.2	6.4	28.2	15.1	_0.4	5.9	28.2	15.0	0.3	6.2	0.3	
32	27.0	14.4	-1.1	4.7	27.2	14.2	-1.2	4.8	27.0	14.3	-1.2	4.3	27.2	14.3	-1.0	4.8	0.2	

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	(cor	nca	st						ragg St									
	Equipr	nent Lis	ed.	100' d	nn Wa	wetek S			vel Vari val Leve		S/N 43	4057(	Date: 02/03/07					
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	Time: 0	1:14:38			Time: 0	7:16:00		_	Time: 1	3:47:45			Time: 19:38:28					
Temp	40				34				30				35					
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR	
33	28.0	15.4	1.0	6.5	28.2	15.2	1.0	6.3	28.2	15.6	1.2	6.3	28.2	15.5	1.0	6.2	0.2	
34	28.0	15.5	0.0	5.9	28.6	15.7	0.4	6.4	27.9	15.4	<u>-0.3</u>	5.3	28.2	15.5	0.0	5.8	0.7	
35	28.2	15.0	0.2	5.8	28.6	15.1	0.0	6.2	28.1	14.9	0.2	5.2	28.2	14.8	0.0	5.6	0.5	
36	28.4	15.3	0.2	5.4	28.7	15.2	0.1	5.8	28.0	14.9	-0.1	4.7	28.7	15.4	0.5	5.8	0.7	
37	28.5	15.4	0.1	5.4	28.8	15.4	0.1	5.7	28.6	15.5	0.6	5.0	28.7	15.4	0.0	5.1	0.3	
38	28.9	15.2	0.4	6.0	29.3	15.0	0.5	6.4	28.7	15.0	0.1	5.1	<u>29.1</u>	14.9	0.4	5.6 5.5	0.6	
<u>39</u> 40*1	28.9	14,7	0.0	5.7	29.2	14.6	-0.1	6.0	<u>28.8</u>	14.5	0.1	5.2	<u> 28.</u> 9	14,4	-0.2	5.5	0.4	
40-1	28.7	15.2	-0.2	4.6	28.9	14.8	-0.3	4.8	28.6	15.1	-0.2	4.5	28.8	14.9	-0.1	4.7	0.3	
42	29.0	15.5	0.3	7.0	29.0	14.9	0.1	7.1	28.6	14.9	0.0	6.4	28.9	14.9	0.1	6.7	0.3	
43	29.0	15.4	0.3	6.8	29.5	15.2	0.1	7.1	29.1	15.2	0.0	6.2	29.6	15.4	0.1	6.9	0.4	
44	29.1	14.5	-0.2	4.5	30.0	15.1	0.5	5.4	29.5	14.9	0.4	4.6	29.8	14.9	0.2	5.0	0.9	
45	29.1	15.7	0.0	4.8	29.6	15.5	-0.4	5.2	29.0	15.5	-0.5	4.3	29.4	15.4	-0.4	4.6	0.6	
46	29.3	15.2	0.2	4.4	29.8	15.4	0.2	5.1	29.4	15.2	0.4	4.4	29.5	15.1	0.1	4.3	0.5	
47	26.5	14.3	-2.8	3.0	28.7	14.2	-1.1	4.9	26.5	14.6	-2.9	2.5	26.7	14.3	-2.8	2.4	2.2	
48	29.1	15.0	2.6	3.9	29.4	14.9	0.7	4.3	28.8	14.8	2.3	3.4	29.3	14.9	2.6	3.9	0.6	
49	29.7	15.4	0.6	4.2	30.0	15.4	0.6	4.5	29.6	15.3	0.8	4.0	29.9	15.3	0.6	4.2	0.4	
50	29.1	14.8	-0.6	3.5	29.3	14.7	-0.7	3.7	28.8	14.6	-0.8	2.9	29.4	14.9	-0.5	3.6	0.6	
51	29.8	15.0	0.7	4.3	29.8	14.7	0.5	4.3	29.4	14.7	0.6	3.7	29.8	14.7	0.4	3.9	0.4	
52	29.4	14.7	-0.4	4.1	29.8	1 <u>4.9</u>	0.0	4.2	29.2	14.7	-0.2	3.6	29.6	14.8	-0.2	4.1	0.6	
53	29.6	14.8	0.2	4.3	29.7	14.6	-0.1	4.3	29.7	15.0	0.5	4.1	30.0	14.9	0.4	4.3	0.4	
54	29.5	14.6	-0.1	4.0	29.8	14.6	0.1	4.3	29.5	14.7	-0.2	<u>3.6</u>	29.9	14.8	-0.1	4.0	0.4	
55	29.8	14.8	0.3	4.0	30.2	14.8	0.4	4.4	29.8	14.8	0.3	3.8	30.0	14.7	0.1	4.1	0.4	
56	29.7	14.6	-0.1	4.0	29.9	14.4	-0.3	3.9	29.6	14.5	-0.2	3.5	<u>30.0</u>	14.6	0.0	3.9	0.4	
57	30.2	14.6	0.5	4.4	30.3	14.5	0.4	4.5	30.0	14.6	0.4	4.0	30.2	14.5	0.2	4.1	0.3	
58*1	20.0	44.0	0.0	4.2	20.0	110	01	4.6	20.7	146	0.2	3.7	30.1	14.7	-0.1	4.1	0.5	
59 60	30.0 30.0	14.9 14.9	-0.2	<b>4</b> .2 3.7	30.2 30.3	14.0 15.0	<u>-0.1</u> 0.1	4.6 4.1	<u>29.7</u> 30.0	14.6 15.0	-0.3 0.3	3.7	30.1	14.7	0.0	3.4	0.5	
61	29.6	14.9	-0.4	3.7 3.1	<u>30.3</u> 30.3	15.0	0.1	4.1	29.9	15.0	-0.1	3.5	30.1	14.9	0.0	3.4	0.3	
62	30.2	15.0	-0.4	4.0	30.3	15.4	0.0	4.1	30.1	15.3	0.1	3.5	30.4	15.3	0.1	3.6	3.0	
63	30.2	15.1	0.0	3.7	30.9	15.2	0.5	4.1	30.5	15.1	0.4	3.1	31.0	15.4	0.6	3.8	0.5	
63 64	30.3	15.3	-0.2	2.9	30.5	15.2	-0.3	3.2	30.2	15.2	-0.3	2.6	30.4	15.1	-0.6	2.5	0.4	
65	30.5	15.4	0.2	3.4	30.6	15.1	0.0	3.6	30.4	15.3	0.2	3.1	30.6	15.2	0.2	3.3	0.4	
66	30.1	14.8	-0.4	3.1	30.3	14.8	-0.3	3.2	30.0	14.7	-0.4	2.7	30.4	15.0	-0.2	2.9	0.4	
67	31.4	14.9	1.3	4.3	31.8	15.0	1.5	4.8	31.4	14.9	1.4	4.1	31.6	14.9	1.2	4.3	0.4	
68	31.7	15.2	0.3	4.7	32.0	15.2	0.2	5.0	31.6	15.2	0.2	4.2	31.9	15.2	0.3	4.6	0.4	
69	31.4	16.3	-0.3	4.2	31.4	16.0	-0.6	4.3	31.4	16.2	-0.2	3.9	31.4	16.0	-0.5	4.1	0.0	
70	31.7	14.7	0.3	4.7	31.9	14.6	0.5	5.0	31.8	14.7	0.4	4.7	31.9	14.7	0.5	4.7	0.2	
71	31.7	14.5	0.0	4,4	32.2	14.7	0.3	4.9	31.9	14.7	0.1	4,4	32.1	14.7	0.2	4.5	0.5	
72	30.0	15.0	-1.7	4.5	30.3	14.9	-1.9	5.7	30.0	14.9	-1.9	5.3	30.2	15.0	-1.9	5.3	0.3	

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Date: 02/03/07

Equipment Used:

85 S. Bragg St. 24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057(

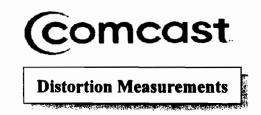
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Run	1	_			2		_		3				4					
	Time: 0	1:14:38			Time: 0	7:16:00			Time: 13:47:45				Time: 19:38:28					
Temp	40				34				30				35					
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR	
73	31.3	14.8	1.3	4.0	31.6	14.8	1.3	4.5	31.5	14.8	1.5	4.0	31.6	14.9	1.4	4.0	0.3	
74	31.2	1 <u>4.</u> 7	-0.1	3.5	31.4	14.7	-0.2	3.6	31.3	14.8	-0.2	3.4	31.3	14.7	-0.3	3.3	0.2	
75*1																		
76	31.0	15.0	-0.2	4.0	31.3	14.9	0.1	4.2	31.2	15.0	-0.1	4.0	31.3	15.1	0.0	3.9	0.3	
77	31.1	15.5	0.1	4.5	31.2	15.2	-0.1	4.7	31.3	15.5	0.1	4.5	31.3	15.6	0.0	4.6	0.2	
78*1																		
Min Value	24.7	11.6	-2.8	2.9	25.0	11.8	-1.9	3.2	24.9	11.7	-2.9	2.5	24.7	11.8	-2.8	2.4	0.0	
Max Value	31.7	16.3	2.6	7.9	32.2	16.0	1.5	7.9	31.9	16.2	2.3	7.9	32.1	16.0	2.6	7.5	3.0	

Notes:

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\*1 - Channel has been removed from the analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. All of Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

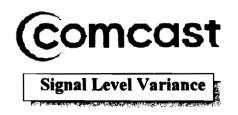


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Tower Ct. & Whitting St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

	Date: 02/2	8/07	Time: 6:26	PM	Temp: 45					
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	1.2	0.9	76.9	65.3	50.3	4.5000			
	95	2.0	0.7	76.6	66.7	52.1	4.5000			
	21	1.1	0.9	69.5	66.2	52.3	4.5001			
	8	1.5	0.7	70 <u>.5</u>	66.2	51.9	4.5001			
	28	1.1	0.6	67.4	64.7	51.9	4.5000			
	32	1.1	0.7	68.8	66.6	51.0	4.5001			
	47	1.4	0.8	71.2	60.5	50.9	4.5000			
	56	1.3	0.8	72 <u>.5</u>	63.9	49.3	4.5000			
	72	0.8	0.9	67.6	61.2	51.3	4.5000			
Minimum v	alues:	0.8	0.6	67.4	60.5	49.3	4.5000			
Maximum	values:	2	0.9	76.9	66.7	52.3	4.5001			

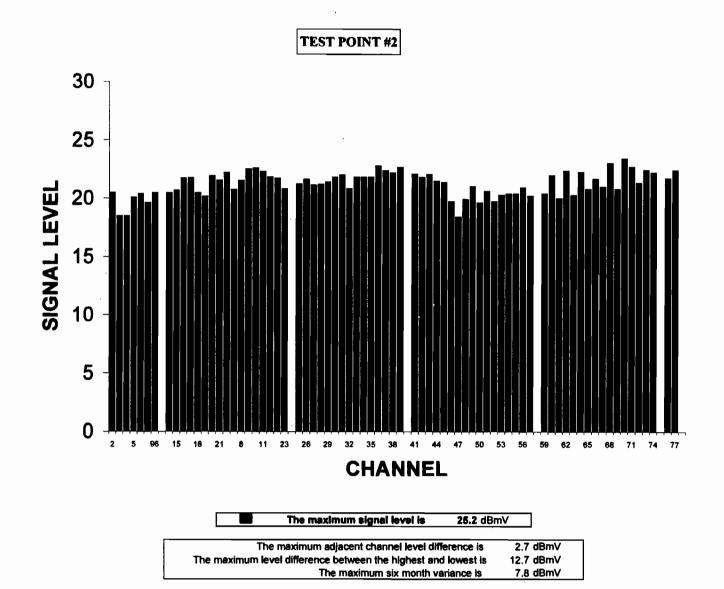
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The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	3/07				
24 Hour Level Variation           Equipment Used:         100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057(         Date: 02/02           Run         1         2         3         4           Time: 01:08:02         Time: 07:08:38         Time: 13:34:43         Time: 19:30:07           Temp         40         34         35           Chan         Vid         Aud         Add Adjent< 6 Mth         Vid         Aud         Aud         Add Adjent         6 Mth         Vid         Aud	3/07				
Run         1         2         3         4           Time: 01:08:02         Time: 07:08:38         Time: 13:34:43         Time: 19:30:07           Temp         40         34         30         35           Chan         Vid         Aud         Adjent         6 Mth         Vid         Aud         Adjent         10.0         0.0	3/07				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					
Temp         40         34         30         35           Chan         Vid         Aud         Adjont         6 Mth         Vid         Aud         Adjont         Adjont         6 Mth					
Chan         Vid         Aud         Adjont         6 Mth         Vid         Aud         Adjont         Mth         Mth         Mth         Mth         Mth         Mth         Mth         Mth         Mud         Adjont         Mth         Mth         Mud         Adjont         Mth         Mud					
Lvi         Diff         Diff         Lvi         Diff         D					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
4         18.5         15.6         0.0         6.4         12.5         16.5         -0.6         0.6         18.6         15.8         -0.7         6.4         18.7         16.0         -0.0           5         20.1         14.9         1.6         7.7         13.3         12.5         0.8         0.8         18.9         13.7         0.3         6.5         19.1         13.9         0.           6         20.4         15.4         0.3         7.7         14.3         14.4         1.0         1.4         20.6         15.6         1.7         7.8         20.1         15.1         1.           95         19.6         13.9         -0.8         5.8         14.5         14.2         0.2         0.8         19.7         14.0         -0.9         5.7         19.5         13.8         -0           96         20.5         14.8         0.9         6.4         14.4         14.3         -0.1         0.2         20.5         14.8         0.8         6.2         20.4         14.7         0.           99°1	4.6         6.4           7         6.4         6.2				
5         20.1         14.9         1.6         7.7         13.3         12.5         0.8         0.8         18.9         13.7         0.3         6.5         19.1         13.9         0.           6         20.4         15.4         0.3         7.7         14.3         14.4         1.0         1.4         20.6         15.6         1.7         7.8         20.1         15.1         1.           95         19.6         13.9         -0.8         5.8         14.5         14.2         0.2         0.8         19.7         14.0         -0.9         5.7         19.5         13.8         -0           96         20.5         14.8         0.9         6.4         14.4         14.3         -0.1         0.2         20.5         14.8         0.8         6.2         20.4         14.7         0.           99°1					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
95         19.6         13.9         -0.8         5.8         14.5         14.2         0.2         0.8         19.7         14.0         -0.9         5.7         19.5         13.8         -0           96         20.5         14.8         0.9         6.4         14.4         14.3         -0.1         0.2         20.5         14.8         0.8         6.2         20.4         14.7         0.           99°1					
96         20.5         14.8         0.9         6.4         14.4         14.3         -0.1         0.2         20.5         14.8         0.8         6.2         20.4         14.7         0.           99°1					
99°1         -					
14         20.5         14.6         -0.2         6.2         17.7         15.8         0.8         3.5         20.5         14.7         -0.3         6.0         20.6         14.8         0.           15         20.7         13.8         0.2         7.4         16.9         13.0         -0.8         3.5         20.8         13.8         0.3         7.2         20.6         13.7         0.           16         21.8         15.8         1.1         7.7         19.4         15.9         2.5         6.2         21.7         15.8         0.9         7.6         19.7         16.6         -0           17         21.8         15.0         0.0         7.0         18.8         14.3         -0.6         4.1         21.8         15.0         0.1         7.4         21.7         14.9         2.           18         20.5         15.5         -1.3         6.9         20.5         15.7         1.7         6.9         20.5         15.5         -1.3         6.5         20.4         15.5         -1           18         20.2         15.0         -0.3         6.1         19.0         15.0         -1.5         7.2         20.4					
15         20.7         13.8         0.2         7.4         16.9         13.0         -0.8         3.5         20.8         13.8         0.3         7.2         20.6         13.7         0.           16         21.8         15.8         1.1         7.7         19.4         15.9         2.5         6.2         21.7         15.8         0.9         7.6         19.7         16.6         -0           17         21.8         15.0         0.0         7.0         18.8         14.3         -0.6         4.1         21.8         15.0         0.1         7.4         21.7         14.9         2.           18         20.5         15.5         -1.3         6.9         20.5         15.7         1.7         6.9         20.5         15.5         -1.3         6.5         20.4         15.5         -1           19         20.2         15.0         -0.3         6.1         19.0         15.0         -1.5         7.2         20.4         15.2         -0.1         6.5         20.3         15.2         -0	0 6.3 2.9				
16         21.8         15.8         1.1         7.7         19.4         15.9         2.5         6.2         21.7         15.8         0.9         7.6         19.7         16.6         -0           17         21.8         15.0         0.0         7.0         18.8         14.3         -0.6         4.1         21.8         15.0         0.1         7.4         21.7         14.9         2.           18         20.5         15.5         -1.3         6.9         20.5         15.7         1.7         6.9         20.5         15.5         -1.3         6.5         20.4         15.5         -1           19         20.2         15.0         -0.3         6.1         19.0         15.0         -1.5         7.2         20.4         15.2         -0.1         6.5         20.3         15.2         -0					
17         21.8         15.0         0.0         7.0         18.8         14.3         -0.6         4.1         21.8         15.0         0.1         7.4         21.7         14.9         2.           18         20.5         15.5         -1.3         6.9         20.5         15.7         1.7         6.9         20.5         15.5         -1.3         6.5         20.4         15.5         -1           19         20.2         15.0         -0.3         6.1         19.0         15.0         -1.5         7.2         20.4         15.2         -0.1         6.5         20.3         15.2         -0					
18         20.5         15.5         -1.3         6.9         20.5         15.7         1.7         6.9         20.5         15.5         -1.3         6.5         20.4         15.5         -1           19         20.2         15.0         -0.3         6.1         19.0         15.0         -1.5         7.2         20.4         15.2         -0.1         6.5         20.3         15.2         -0	0 7.0 3.0				
	.3 6.5 0.1				
	.1 6.3 1.4				
	7 7.4 1.7				
21 21.6 14.2 -0.4 6.9 19.7 14.4 -0.8 4.9 21.4 14.1 -0.8 6.7 21.4 14.1 -0					
22 22.3 15.2 0.7 7.1 20.5 14.8 0.8 5.2 22.5 15.5 1.1 7.3 22.5 15.5 1.					
7 20.8 15.5 -1.5 6.1 20.5 13.8 0.0 5.7 22.3 15.0 -0.2 7.5 22.5 15.2 0.					
8 21.6 14.6 0.8 7.0 19.7 13.9 -0.8 5.0 21.5 14.4 -0.8 6.7 21.5 14.5 -1					
9 22.6 15.5 1.0 7.2 20.0 14.3 0.3 4.6 22.3 15.2 0.8 6.7 22.3 15.2 0.					
10 22.7 15.9 0.1 6.8 20.5 15.2 0.5 4.7 22.6 15.8 0.3 6.9 22.6 15.8 0.					
11 22.4 15.4 -0.3 6.0 20.6 16.1 0.1 4.1 22.3 15.4 -0.3 5.9 22.2 15.3 -0					
12 21.9 15.4 -0.5 5.0 19.1 13.9 -1.5 2.6 22.0 15.5 -0.3 5.1 21.8 15.2 -0					
<u>13</u> 21.8 15.6 -0.1 5.0 20.1 16.1 1.0 3.4 21.8 15.6 -0.2 5.1 21.9 15.7 0.					
23 20.9 15.3 -0.9 5.0 18.2 14.0 -1.9 2.4 20.9 15.3 -0.9 5.0 20.9 15.3 -1	.0 5.2 2.7				
<u>24*1</u> <u>25</u> 21.3 15.8 -0.4 7.2 19.1 15.3 -1.4 4.2 21.3 15.8 0.4 6.5 21.3 15.8 0.	4 6.2 2.2				
26         21.7         15.2         0.4         5.7         20.5         16.0         1.4         4.6         21.6         15.1         0.3         5.6         21.7         15.3         0.           27         21.2         14.2         -0.5         5.1         18.9         13.4         -1.6         3.1         21.2         14.2         -0.4         5.1         21.3         14.2         -0					
28 21.3 15.2 0.1 4.3 19.7 15.0 0.8 2.7 21.5 15.4 0.3 4.4 21.3 15.2 0.					
28 21.3 15.2 0.1 4.3 19.7 15.0 0.8 2.7 21.5 15.4 0.3 4.4 21.3 15.2 0. 29 21.5 15.3 0.2 5.3 19.6 14.7 -0.1 3.3 21.5 15.3 0.0 5.2 21.8 15.6 0.					
29         21.5         15.5         0.2         5.5         19.0         14.7         -0.1         5.5         21.5         15.5         0.0         5.2         21.0         15.0         0.0         5.3         21.9         15.5         0.0         5.3         21.9         15.5         0.0         5.3         21.9         15.5         0.0         5.3         21.9         15.1         0.0           30         21.9         15.0         0.4         5.3         21.1         15.4         1.5         4.6         21.8         14.9         0.3         5.3         21.9         15.1         0.0					
<u>30 21.9 3.0 0.4 5.3 21.1 15.4 1.5 4.0 21.6 14.9 0.3 5.8 21.3 15.1 0.</u> 31 22.1 15.3 0.2 6.0 20.9 15.5 -0.2 4.8 22.1 15.2 0.3 5.8 22.3 15.5 0.	1 1 5 4 1 11×				
31 22.1 13.3 0.2 0.0 20.9 13.3 0.2 4.0 22.1 13.2 0.3 3.0 22.3 13.5 0. 32 20.9 14.3 -1.2 3.9 20.0 14.4 -0.9 3.0 20.7 14.1 -1.4 3.7 20.9 14.4 -1					

	(cor	nca	st				Towe	r Ct. & S	s. Whitt	ing St.	-							
	~							iour Le										
	Equipn	nent Us	sed:	100' d	rop, Wa	vetek S	SDA-50	00 Sigr	al Leve	l Meter	S/N 43	4057(	_	Date: (	02/03/07	7		
Run	1				2		_		3				4	_				
<b>T</b>	Time: 0	1:08:02			Time: 0	7:08:38			Time: 1	3:34:43			Time: 1	9:30:07				
Temp	40	Aud	Adlant	0.445	34	Aud	A	0.144	_30	Aud		0.144	35					
Chan 33	Vid 21.9	Aud 15.3	1.0	6 Mth	Vid 20.9		Adjent 0.9		Vid		Adjcnt 1.2		Vid		Adjoint		the second s	4
34	21.9	15.5	0.0	5.6 6.1	20.9	15.6 15.0	0.9	<u>4.6</u> 5.1	21.9 21.9	15.4 15.4	0.0	5.4 6.1	22.0 22.1	<u>15.4</u> 15.6	<u>1.1</u> 0.1	5.5 6.2	1.1 1.1	
35	21.9	14.1	0.0	5.6	20.8	14,4	-0.2	4.7	21.9	14.0	0.0	5.7	22.0	14.2	-0.1	0.2 5.7	1.1	1
36	22.9	15.8	1.0	6.2	20.0	15.3	0.9	5.1	22.8	15.6	0.9	6.0	22.8	15.7	0.8	5.9	1.2	
37	22.5	16.2	-0.4	5.6	21.7	16.2	0.0	4.8	22.5	16.1	-0.3	5.3	22.5	16.1	-0.3	5.4	0.8	
38	22.3	14.8	-0.2	5.8	20.7	14.1	-1.0	4.2	22.3	14.8	-0.2	4.9	22.5	15.0	0.0	5.0	1.8	
39	22.8	15.2	0.5	6.0	21.5	15.8	0.8	4.9	22.5	14.9	0.2	5.7	22.7	15.0	0.2	6.0	1.3	
40*1																		
41	22.2	15.4	-0.6	4.5	21.5	16.4	0.0	3.8	22.3	15.5	-0.2	4.8	22.3	15.5	-0.4	4.6	0.8	
42	21.9	15.2	-0.3	6.8	20.4	14.5	-1.1	5.3	22.0	15.2	-0.3	7.0	22.3	15.4	0.0	7.2	1.9	1
43	22.2	15.7	0.3	6.7	21.9	16.2	1.5	6.6	22.5	16.0	0.5	7.0	22.7	16.2	0.4	7.3	0.8	
44	21.6	14.6	-0.6	4.7	20.8	14.1	-1.1	4.0	22.8	15.1	0.3	5.9	22.7	14.9	0.0	5.8	2.0	
45	21.5	15.2	-0.1	4.8	21.9	16.8	1.1	5.4	22.9	16.5	0.1	6.3	22.8	16.3	0.1	6.3	1.4	
46	<u>19.</u> 8	14,4	-1.7	2.6	21.2	14.0	-0.7	4.0	22.1	15.0	-0.8	4.7	22.1	15.0	-0.7	4.7	2.3	
47	18.5	15.2	-1.3	2.7	20.3	15.0	-0.9	4.7	20.1	14.9	-2.0	4.1	20.2	14.9	-1.9	5.1	1.8	
48	20.0	15.3	1.5	2.0	22.3	15.3	2.0	4.5	21.9	15.0	1.8	4.3	22.2	15.3	2.0	4.7	2.3	1
49	21.1	16.0	1.1	3.0	22.8	15.5	0.5	4.7	22.7	15.7	0.8	4.6	22.6	15.5	0.4	4.5	1.7	1
50	19.7	15.3	-1.4	1.9	22.1	15.2	-0.7	4.6	22.1	15.3	-0.6	4.4	22.0	15.1	-0.6	4.1	2.4	
51	20.7	15.1	1.0	2.6	22.7	15.6	0.6	4.7	22.6	15.6	0.5	4.3	22.7	15.6	0.7	4.4	2.0	
<u>52</u> 53	<u>19.8</u> 20.4	15.0 14.3	-0.9 0.6	0.8	<u>21.8</u> 22.8	14.3 15.0	<u>-0.9</u> 1.0	2.8	21.9 22.6	14.4 15.0	<u>-0.7</u>	2.9 4.0	21.9 22.7	<u>14.4</u> 15.0	-0.8 0.8	3.0 4.0	2.1 2.4	1
<u> </u>	20.4	14.3	0.8	2.3	22.6	15.0	-0.4	4.2	22.0	15.0	-0.3	4.1	22.7	15.0	-0.4	4.0	1.9	1
55	20.5	13.8	0.0	1.3	23.1	15.1	0.7	4.0	22.9	15.0	0.6	3.8	22.9	14.9	0.6	3.8	2.6	
56	21.0	16.4	0.5	1.7	23.0	15.5	-0.1	3.8	22.8	15.5	-0.1	3.5	22.8	15.4	-0.1	3.5	2.0	
57	20.3	13.5	-0.7	1.4	23.0	14.9	-0.1	4.2	22.9	15.0	0.1	3.9	23.0	15.0	0.2	4.1	2.0	
58*1	20.0	.0.0	- <u></u>							.0.0	0.1	0.0	20.0					1
59	20.5	13.4	0.2	1.5	23.0	14.6	0.1	4.0	23.2	14.9	0.3	4.1	23.3	15.1	0.3	4.4	2.8	
60	22.1	16.4	1.6	3.7	23.3	15.7	0.3	5.0	23.1	15.7	-0.1	4.6	23.1	15.7	-0.2	4.4	1.2	
61	20.1	13.7	-2.0	1.5	23.3	15.4	0.0	4.8	23.2	15.4	0.1	4.8	23.2	15.4	0.1	4.7	3.2	
62	22.5	16.4	2.4	4.0	23.9	16.5	0.6	5.5	23.8	16.4	0.6	5.5	23.9	16.5	0.7	5.9	1.4	
63	20.4	13.3	-2.1	1.1	23.4	14.8	-0.5	4.1	23.4	14.9	-0,4	4.4	23.3	14.8	-0.6	4,2	3.0	
64	22.4	16.8	2.0	3.2	23.4	15.7	0.0	4.4	23.4	15.8	0.0	4.5	23.6	15.9	0.3	4.6	1.2	
65	20.9	15.3	-1.5	2.5	23.0	15.1	-0.4	4.7	23.2	15.3	-0.2	5.0	23.2	15.3	-0.4	5.1	2.3	
66	21.8	16.8	0.9	3.3	23.3	<u> 16.3</u>	0.3	4.9	23.0	16.1	-0.2	4.9	22.9	15.9	-0.3	4.3	1.5	
67	21.1	14.2	-0.7	2.0	23.9	14.7	0.6	4.5	23.6	14.4	0.6	4.4	23.9	14.8	1.0	4,7	2.8	
68	23.2	16.3	2.1	3.6	24.7	16.3	0.8	<u>5.</u> 0	24.4	16.1	0.8	4.8	24.7	16.3	0.8	5.1	1.5	· ·
69	20.9	15.1	-2.3	1.7	23.3	15.2	-1.4	4.0	23.2	15.1	-1.2	3.9	23.4	15.3	-1.3	4.2	2.5	
70	23.6	15.3	2.7	3.9	25.2	15.8	1.9	5.4	25.1	15.7	1.9	5.5	25.0	15.6	1.6	5.2	1.6	
71	22.9	15.2	-0.7	4.0	24.7	14.3	-0.5	5.7	24.6	14.3	-0.5	5.6	24.8	14.4	-0.2	5.7	1.9	
72	21.5	14.5	-1.4	2.3	23.6	<u>15.7</u>	-1.1	4.6	23.6	15.8	-1.0	4.5	<u>23.5</u>	15.5	-1.3	4.0	2.1	

.

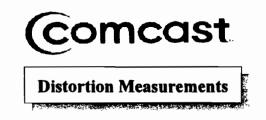
(comcast

Tower Ct. & S. Whitting St. 24 Hour Level Variation

	Equipn	nent Us	ed:	100' d	rop, Wa	wetek (	SDA-50	000 Signal Level Meter S/N 434057(						Date: 02/03/07			
Run	1				2				3				4			_	
	Time: 0	1:08:02			Time: 0	7:08:38			Time: 1	3:34:43			Time: 1	9:30:07			
Temp	40				34		_		30				35				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
73	22.6	15.5	1.1	3.6	24.3	14.6	0.7	5.1	24.1	14.5	0.5	4.9	24.3	14.7	0.8	5.0	1.7
74	22.4	14.7	-0.2	2.5	24.8	16.4	0.5	4.9	24.8	16.5	0.7	4.7	24.8	16.4	0.5	4.8	2.4
75*1																	
76	21.9	13.7	-0.5	3.3	24.5	15.7	0.2	6.3	24.4	15.6	0.3	5.8	24.5	15.7	0.2	6.0	2.6
77	22.6	16.9	0.7	5.4	23.4	15.0	-1.1	6.2	23.3	14.9	-1.1	6.3	23.5	15.0	-1.0	6.4	0.9
<b>78*1</b>						_											
Min Value	18.5	13.3	-2.3	0.8	12.5	12.5	-1.9	0.2	17.7	11.8	-2.0	2.9	17.6	11.8	-1.9	3.0	0.1
Max Value	23.6	16.9	2.7	7.7	25.2	16.8	2.5	7.2	25.1	16.5	1.9	7.8	25.0	16.6	2.0	7.7	6.8

Notes:

\*1 - Channel has been removed from analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

## Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

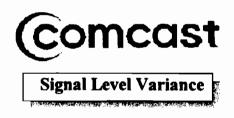
The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

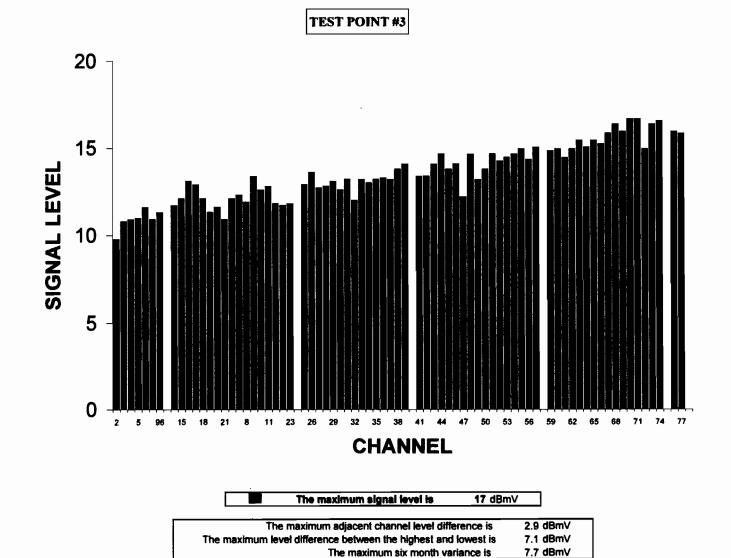
	(comcast	
	1 N. Donelson St.	
	Alexandria, VA	
	FCC Distortion Measurements	
<b>_</b>	EQUIPMENT USED:	<u>ن</u>
<b>_</b>	H/P <sup>3</sup> 8591C, S/N 3916A04384	
	Pre-Amplifier 85905A, S/N 6093-0551	
	Comsonics Cybertec Examiner	
	CONVERTER BOX SA 8511, S/N GF505BFDN	

	Date:02/27	/07	Time: 8:13	PM	Temp: 40					
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	0.7	1.1	68.7	73.5	47.8	4.5000			
	95	1.8	1.0	68.1	65.3	48.7	4.5000			
	21	0.7	1.1	70.9	64.7	49.2	4.5001			
	8	1.1	0.8	65.3	66.5	50.0	4.5001			
	28	0.8	0.9	70.0	67.5	49.4	4.5000			
	32	0.7	1.0	68.2	69.0	50.1	4.5001			
	47	0.6	0.7	71.5	67.6	48.4	4.5000			
	56	1.0	0.9	71.8	64.0	48.0	4.5000			
	72	0.5	1.2	67.1	68.4	49.2	4.5000			
Minimum v	alues:	0.5	0.7	65.3	64.0	47.8	4.5000			
Maximum	values:	1.8	1.2	71.8	73.5	50.1	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							T	'est Po	oint #3	3							
	(cor	nca	et				1	N. Don	elson S	st.	y .						
	(20)	neu					24 1	iour Le	vel Vari	ation							
	Equipn	nent Us	sed:	100' d	rop, Wa	vetek S	SDA-50	00 Sigr	al Leve	i Mete	S/N 42	24057(		Date: (	02/03/0	7	
Run	1				2				3				4				
	Time: 0	0:52:41			Time: 0	0:52:41		•	Time: 1	3:17:30			Time: 1	9:13:39			
Temp	40				_34		-		30				35		terres and a		
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont		Vid	Aud	Adjent		Vid	Aud	Adjent		24 HR
	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Vid Diff
2	9.8	11.4		3.7	9.8	11.4		3.8	9.8	11.5		3.8	9.7	11.4		3.7	0.1
3	10.8	14.4	1.0	4.5	10.8	14.4	1.0	4.5	11.0	14.5	1.2	2.4	11.0	14.6	1.3	4.7	0.2
4	10.9	14.1	0.1	4.7	10.9	14.1	0.1	4.5	12.3	15.7	1.3	4.1	11.9	15.1	0.9	5.5	1.4
5	11.0	14.2	0.1	3.7	11.0	14.2	0.1	4.5	11.4	14.7	-0.9	4.9	11.4	14.6	-0.5	4.9	0.4
6	11.6	14.9	0.6	5.0	11.6	14.9	0.6	5.1	11.2	14.5	-0.2	4.7	11.7	15.0	0.3	5.2	0.5
95	10.9	13.9	-0.7	2.9	10.9	13.9	-0.7	2.8	10.8	13.8	-0.4	2.7	11.0	14.0	-0.7	2.9	0.2
96	11.3	14.4	0.4	3.6	11.3	<u>14.4</u>	0.4	3.4	11.5	14.6	0.7	3.6	11.3	14.3	0.3	3.4	0.2
99*1													44.0	1 1 1 0			
14	11.7	14.9	-0.4	7.7	11.7	14.9	-0.4	7.5	11.5	14.9	-0.2	7.3	11.6	14.8	-0.2	4.4	0.2
15	12.1	14.3	0.4	6.4	12.1	14.3	0.4	6.3	11.7	14.2	0.2	5.9 6.5	11.8 12.8	14.1 16.7	0.2	6.0 6.8	0.4
16	13.1	16.8	1.0	6.9	<u>13.1</u>	16.8	1.0	7.1	12.5	16.4	-0.9	5.8	12.6	14.6	-0.2	6.8	1.3
17	12.9	17.0	-0.2	7.0	12.9	17.0	-0.2	7.1	11.6	15.8 14.9	-0.9	2.3	12.0	16.3	-0.2	4.4	1.5
18	12.1	12.3	-0.8	6.0	12.1	12.3	-0.8	6.0	10.9			<u>∡.</u> 3 5.5	10.5		-0.2	4.4	1.0
19	11.3	14.5	-0.8	5.4	11.3	14.5	-0.8	5.4 5.2	11.4	14.7 14.8	0.5	5.0	10.3	13.9 14.8	1.0	4.4	0.3
20	11.6	14.9	0.3	5.1	11.6	14.9	0.3	5.2	<u>11.4</u> 11.0	14.8	-0.4	4.0	10.8	13.4	-0.5	5.0	0.3
21	10.9	13.4	<u>-0.7</u>	5.2 6.0	<u>10.9</u> 12.1	13.4 14.6	-0.7	6.1	11.0	14.8	1.1	6.1	12.1	14.6	1.3	6.1	0.2
<u>22</u> 7	12.1 12.3	14.6 14.8	0.2	4.0	12.1	14.8	0.2	3.5	11.8	14.4	-0.3	3.0	11.9	14.4	-0.2	3.1	0.5
8	12.3	14.8	-0.4	4.0	12.3	14.8	-0.4	3.8	11.8	14.7	0.0	3.7	11.7	14.6	-0.2	3.6	0.2
9	13.4	14.0	1.5	5.6	13.4	16.1	1.5	5.3	12.4	15.0	0.6	4.3	12.3	15.0	0.6	3.3	1.1
10	12.6	15.4	-0.8	4.7	12.6	15.4	-0.8	4.4	12.6	15.5	0.2	4.4	12.7	15.4	0.4	4.5	0.1
11	12.8	16.0	0.2	4.9	12.8	16.0	0.2	4.6	12.4	15.7	-0.2	4.2	12.3	15.5	-0.4	4.1	0.5
12	11.8	15.4	-1.0	4.1	11.8	15.4	-1.0	4.0	11.9	15.4	-0.5	4.1	11.9	15.5	-0.4	4.1	0.1
13	11.7	15.2	-0.1	4.7	11.7	15.2	-0.1	4.2	11.9	12.1	0.0	4.4	11.7	15.3	-0.2	4.2	0.2
23	11.8	11.9	0.1	4.5	11.8	11.9	0.1	4.6	14.3	16.1	2.4	7.1	11.4	11.1	-0.3	4.2	2.9
24*1	1		1														
25	12.9	15.6	-0.7	6.2	12.9	15.6	-0.7	6.4	12.7	15.5	-0.6	6.2	13.0	15.7	-0.4	6.5	0.3
26	13.6	15.6	0.7	6.5	13.6	15.6	0.7	6.7	13.3	15.3	0.6	6.4	13.4	15.3	0.4	6.5	0.3
27	12.7	14.1	-0.9	5.6	12.7	14.1	-0.9	5.8	12.4	13.8	-0.9	5.5	12.7	14,0	-0.7	5.8	0.3
28	12.8	15.5	0.1	5.2	12.8	15.5	0.1	5.1	12.6	15.3	0.2	4.9	12.6	15.3	-0.1	4.9	0.2
29	13.1	15.8	0.3	5.5	13.1	15.8	0.3	5.5	13.1	15.7	0.5	5.5	12.9	15.5	0.3	5.3	0.2
30	12.6	14.8	-0.5	5.3	12.6	14.8	-0.5	5.5	12.5	14.7	-0.6	5.4	12.8	15.0	-0.1	5.7	0.3
31	13.2	14.8	0.6	5.8	13.2	14.8	0.6	5.9	13.0	14.7	0.5	5.7	13.0	14.6	0.2	5.7	0.2
32	12.0	14.2	-1.2	4.7	12.0	14.2	-1.2	4.4	12.0	14.4	-1.0	4.4	12.0	14.2	-1.0	4.4	0.0

	Test Point #3																
	(cor	nca	st				1	N. Dor	elson S	st.	*7						
	~								vel Vari							_	
Dur	Equipn	nent Us	ied:	100' d		vetek	SDA-50	00 Sigr	al Leve	el Meter	S/N 42	4057(		Date: (	)2/03/0	7	
Run	1 Time: 0	0.50.44	_		2				3				4				
Temp	40	0:52:41			Time: 0 34	0:52:41			Time: 1 30	3:17:30			Time: 1 35	9:13:39			
Chan	Vid	Aud	Adjent	6 Mib	Vid	Aur	Adjoint	6 Mth	Vid	Aur	Adjent	6 Mth	Vid	Aud	Adiont	6 Mth	
33	13.2	15.6	1.2	5.5	13.2	15.6	1.2	5.4	12.8	15.3	0.8	4.8	13.1	15.5	1.1	5.3	0.4
34	13.0	15.5	-0.2	5.6	13.0	15.5	-0.2	5.7	12.8	15.5	0.0	5.5	12.8	15.3	-0.3	5.5	0.2
35	13.2	15.1	0.2	5.5	13.2	15.1	0.2	5.9	13.0	15.0	0.2	5.7	13.0	14.8	0.2	5.7	0.2
36	13.3	15.2	0.1	6.4	13.3	15.2	0.1	6.3	13.0	15.3	0.0	6.0	13.2	15.1	0.2	6.2	0.3
37	13.2	14.9	-0.1	5.5	13.2	14.9	-0.1	5.5	13.2	15.2	0.2	5.5	13.2	14.9	0.0	5.5	0.0
38	13.8	14.7	0.6	6.0	13.8	14.7	0.6	6.1	13.8	14.8	0.6	6.1	14.1	_15.0	0.9	6.4	0.3
39	14.1	<u>15.5</u>	0.3	6.1	14.1	15.5	0.3	6.2	13.9	<u>15</u> .2	0.1	6.0	13.9	15.2	-0.2	<u>6.0</u>	0.2
40*1		150				10.0											
41	13.4	15.0	-0.7	4.9	13.4	15.0	-0.7	5.0	13.4	15.1	-0.5	5.0	13.5	15.1	-0.4	5.1	0.1
42	13.4 14.1	15.1 15.6	0.0	5.0 5.5	<u>13.4</u> 14.1	15.1 15.6	0.0	5.0 5.6	13.4	15.1	0.0	5.0	13.3	14.9	-0.2	4.9	0.1
44	14.7	15.6	0.7	5.5 6.1	14.1	15.6	0.7	5.8 6.0	13.8 14.5	15.3 15.3	0.4 0.7	<u>5.3</u> 5.3	<u>14.1</u> 14.7	15.5 15.4	0.8	5.6 6.0	0.3
45	13.8	15.3	-0.9	5.9	13.8	15.3	-0.9	5.7	13.5	15.3	-1.0	5.4	13.5	15.1	-1.2	5.4	0.2
46	14.1	14.8	0.3	6.2	14.1	14.8	0.3	6.1	13.0	14.0	-0.5	5.0	14.0	14.7	0.5	6.0	1.1
47	12.2	14.9	-1.9	4.9	12.2	14.9	-1.9	5.0	11.9	14.7	-1.1	4.7	12.2	14.9	-1.8	5.0	0.3
48	14.7	15.5	2.5	5.6	14.7	15.5	2.5	5.6	14.8	16.1	2.9	5.7	14.8	16.6	2.6	5.7	0.1
49	13.2	14.1	-1.5	5.0	13.2	14.1	-1.5	5.1	12.9	13.9	-1.9	4.8	13.1	14.0	-1.7	5.0	0.3
50	13.8	15.0	0.6	5.2	13.8	15.0	0.6	5.6	14.0	15.2	1.1	5.8	14.0	15.2	0.9	5.8	0.2
51	14.7	15.2	0.9	6.2	14.7	15.2	0.9	6.1	14.5	15.1	0.5	5.9	14.8	15.2	0.8	6.2	0.3
52	14.3	14.8	-0.4	4.7	14.3	14.8	-0.4	5.1	14.2	14.8	-0.3	5.0	14.4	14.9	-0.4	5.2	0.2
53	14.5	15.0	0.2	4.9	14.5	15.0	0.2	<u>5.</u> 1	14.4	15.1	0.2	<u>5</u> .0	14.6	15.2	0.2	5.2	0.2
54	14.7	15.5	0.2	5.9	14.7	15.5	0.2	5.8	14.5	15.4	0.1	5.6	14.4	15.2	-0.2	5.5	0.3
55	15.0	15.3	0.3	6.1	15.0	15.3	0.3	6.3	14.9	15.4	0.4	6.2	15.0	15.3	0.6	6.3	0.1
<u>56</u> 57	14.4 15.1	14.6	-0.6	5.3 6.2	14.4 15.1	14.6	-0.6	5.3	14.4	14.7	-0.5	5.3 5.8	14.4 15.0	14.7	-0.6	5.3	0.0
57 58*1	15.1	15.0	0.7	0.2	15.1	<u>15.</u> 0	<u>0.</u> 7	6.1	14.8	<u>14.7</u>	0.4	<b>J.O</b>	15.0	15.0	0.6	6.0	0.3
59	14.9	15.2	-0.2	6.6	14.9	15.2	-0.2	6.6	14.7	15.2	-0.1	6.4	14.8	15.1	-0.2	6.5	0.2
60	15.0	15.6	0.1	6.4	15.0	15.6	0.1	6.1	15.0	15.9	0.3	6.1	15.2	15.8	0.4	6.3	0.2
61	14.5	15.7	-0.5	5.0	14.5	15.7	-0.5	5.4	14.8	16.1	-0.2	5.7	14.9	16.0	-0.3	5.8	0.4
62	15.0	15.7	0.5	5.9	15.0	15.7	0.5	5.9	14.7	15.6	-0.1	5.6	14.9	15.6	0.0	5.8	0.3
63	15.5	15.4	0.5	6.2	15.5	15.4	0.5	6.2	15.2	15.3	0.5	5.9	15.4	15.3	0.5	6.1	0.3
64	15.1	15.2	-0.4	6.2	15.1	15.2	-0.4	6.1	14.9	15.2	-0.3	5.9	15.0	15.2	-0.4	6.0	0.2
65	15.5	15.5	0.4	5.9	15.5	15.5	0.4	5.7	15.5	15.7	0.6	5.7	15.4	15.4	0.4	5.6	0.1
66	15.3	15.7	-0.2	5.8	15.3	15.7	-0.2	5.8	<u>1</u> 5.0	15.6	-0.5	5.5	15.1	15.5	-0.3	5.6	0.3
67	15.9	14.9	_0.6	5.6	15.9	14.9	0.6	5.6	16.1	15.2	1.1	5.8	16.3	15.3	1.2	6.0	0.4
68	16.4	15.2	0.5	6.7	16.4	15.2	0.5	6.8	16.2	15.2	0.1	6.6	16.4	15.2	0.1	6.8	0.2
69	16.0	16.0	-0.4	6.1	16.0	16.0	-0.4	6.2	16.0	16.2	-0.2	6.2	16.3	16.3	-0.1	6.5	0.3
70	16.7	15.3	0.7	6.3	16.7	15.3	0.7	6.7	16.6	15.3	0.6	6.6	16.7	15.3	0.4	6.7	0.1
71	16.7	14.9	0.0	7.4	16.7 15.0	14.9 14.9	0.0	7.6	<u>16.6</u> 14.8	14.9 14.8	0.0	7.5	16.8 14.9	15.1 14.8	0.1 -1.9	7.7	0.2
/2	15.0	14.9	-1./	1.0	15.0	14.9	•1.7	1.2	14.0	14.0	+1,0	7.0	14.8	14.0	-1.8	1.1	0.2

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1 N. Donelson St. 24 Hour Level Variation

Equipment Used: 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 424057( Date: 02/03/07 Run 2 3 4 Time: 00:52:41 Time: 00:52:41 Time: 13:17:30 Time: 19:13:39 Temp 40 34 30 35 Vid Aud Adjoint 6 Mth Vid Aud Adjont 6 Mth Vid Aud Adjont 6 Mth Vid Aud Adjont 6 Mth 24 HR Chan 16.4 15.0 1.4 6.9 16.4 15.0 1.4 6.7 16.1 15.0 1.3 6.4 16.3 15.0 1.4 6.6 73 0.3 74 0.2 7.3 16.6 15.6 0.2 16.5 15.6 16.6 15.6 7.2 0.4 7.1 16.6 15.6 0.3 7.2 0.1 75\*1 6.5 76 16.0 14.9 0.1 16.0 14.9 0.1 6.4 15.7 14.7 0.1 6.1 16.1 15.1 0.2 6.5 0.4 77 15.9 15.2 -0.1 6.9 15.9 15.2 -0.1 7.2 15.6 15.0 -0.1 6.9 15.9 15.2 -0.2 7.2 0.3 78\*1 Min Value 9.8 11.4 -1.9 2.9 9.8 11.4 -1.9 9.8 11.5 -1.9 2.3 9.7 11.1 -2.1 2.9 2.8 0.0 16.6 16.4 Max Value 16.7 17.0 2.5 7.7 16.7 17.0 2.5 2.9 7.5 16.8 16.7 2.6 7.7 7.6 2.9

Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Concast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

## Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

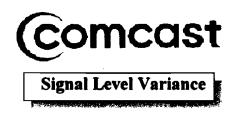
The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

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#### Kenwood St. & Fern St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: / t 41 H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 **Comsonics Cybertec Examiner** CONVERTER BOX SA 8511, S/N GF505BFDN

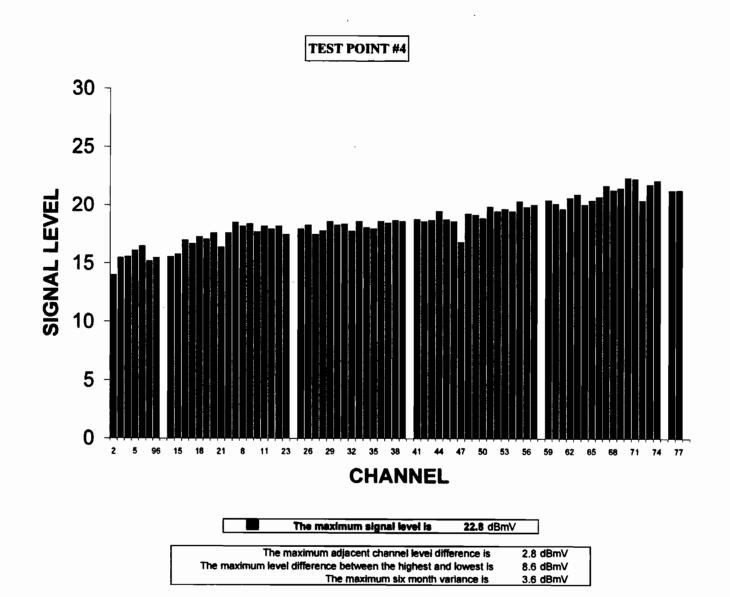
	Date: 08/3	0/06	Time: 12:4	5 pm	Temp: 78				
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF		
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max		
	2	1.4	1.9	70.5	65.1	51.1	4.5000		
	95	2.0	0.9	75.1	65.1	52.7	4.5000		
	21	0.8	0.8	73.0	73.0	53.3	4.5001		
	8	1.9	0.8	71.0	68.6	53.2	4.5001		
	28	1.6	0.8	72.2	73.2	53.5	4.5000		
	32	1.6	0.7	69.3	64.1	53.5	4.5001		
	47	1.5	0.9	69.7	75.7	51.6	4.5000		
	56	1.0	0.9	69.3	67.3	51.9	4.5000		
	72	0.5	0.9	70.2	70.1	51.4	4.5000		
Minimum v	alues:	0.5	0.7	69.3	64.1	51.1	4.5000		
Maximum	values:	2.0	1.9	75.1	75.7	53.5	4.5001		



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The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



							1	'est P	oint #	4	Babala			•			
	(cor	nca	st				Ken	wood S	t. & Fer	m St.	-						
	~						- · ·		vel Vari					-			
	Equipn	nent Us	ed:	<u>100' d</u>		vetek :	SDA-50	00 Sigr		el Meter	S/N 43	34057(		Date:	02/03/0	<u> </u>	
Run	1				2				3				4				
Temp	_Time: 0	0:23:00			Time: 0 34	5:23:06	_		Time: 1 30	2:28:40			Time: 1 35	8:26:28			
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adioat	6 Mth	Vid	Aud	Adjoint	C Mth	Vid	Aud			24 HR
	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Vid Diff
2	14.0	11.5		1.0	14.4	11.9		1.5	14.0	11.7		1.5	14.2	11.7		1.5	0.4
3	15.5	14.9	1.5	2.0	15.7	15.0	1.3	2.3	15.4	14.9	1.4	2.1	15.5	14.9	1.3	2.1	0.3
4	15.6	14.5	0.1	2.0	17.4	16.2	1.7	3.6	16.1	15.1	0.7	3.1	16.3	15.2	0.8	2.1	1.8
5	16.1	15.2	0.5	2.6	15.4	14.3	-2.0	1.2	14.9	14.1	-1.2	1.2	14.9	13.9	-1.4	0.7	1.2
6	16.5	15.6	0.4	2.5	16.5	15.5	1.1	2.1	16.3	15.5	1.4	2.4	16.4	15.4	1.5	2.5	0.2
95	15.2	13.9	-1.3	-0.2	15.3	13.7	-1.2	0.2	15.2	13.9	-1.1	0.3	15.3	13.8	-1.1	0.2	0.1
96	15.5	14.3	0.3	0.2	15.9	14.6	0.6	0.5	15.6	14.4	0.4	0.9	15.8	14.6	0.5	1.0	0.4
99*1																	
14	15.6	14.8	-0.2	0.6	15.8	14.9	-0.1	0.9	15.5	14.8	-0.1	1.4	15.7	14.9	-0.1	1.2	0.3
15	<u>15.8</u>	<u>14.</u> 1	0.2	1.2	15.9	14.1	0.1	1.2	15.6	14.0	0.1	1.3	15.8	14.1	0.1	1.2	0.3
16	17.0	16.0	1.2	2.0	17.0	15.7	1.1	2.0	16.9	16.9	1.3	2.3	16.8	16.5	1.0	2.0	0.2
17	16.7	14.5	-0.3	1.6	16.9	14.5	-0.1	1.7	16.6	14.4	-0.3	1.6	16.7	14.6	-0.1	1.7	0.3
18	17.3	15.5	0.6	2.2	17.4	15.5	0.5	2.4	17.2	15.5	0.6	2.3	17.3	15.5	0.6	2.4	0.2
19	17.1	15.1	-0.2	2.4	17.3	15.1	-0.1	2.7	17.1	15.0	-0.1	1.9	17.0	15.0	-0.3	1.6	0.3
20	17.6	15.7	0.5	1.0	17.7	15.7	0.4	1.1	17.5	15.6	0.4	0.8	17.7	15.8	0.7	1.0	0.2
21	16.4	13.8	-1.2	0.3	16.5	13.8	-1.2	0.2	16.5	13.9	-1.0	0.7	16.5	13.9	-1.2	0.6	0.1
22	17.6 18.5	14.1	1.2	1.4	17.3 19.4	13.7	0.8	1.1 3.1	17.8	14.3	1.3	1.9	17.6	13.9	1.1	1.5	0.5
8	18.5	15.0 14.9	0.9	1.4 1.2	19.4	15.7 15.1	2.1	3.1 1.5	18.8 18.0	15.4 14.9	1.0 -0.8	2.4	18.3 18.2	14.8	0.7	1.5	1.1 0.6
9	18.4	15.2	0.2	1.2	18.2	14.8	-0.4	1.5	18.3	15.2	0.3	0.6	18.3	14.8 15.0	0.1	0.9	0.8
10	17.7	15.2	-0.7	0.2	18.3	15.6	0.1	0.6	18.0	15.6	-0.3	1.2	18.3	15.0	0.0	1.1	0.2
11	18.2	15.7	0.5	0.9	18.6	15.8	0.3	1.2	18.1	15.8	0.1	1.2	18.1	15.4	-0.2	1.3	0.5
12	18.0	15.1	-0.2	0.7	18.4	15.1	-0.2	0.6	18.1	15.2	0.0	1.0	18.3	15.1	0.2	1.1	0.4
13	18.2	15.1	0.2	1.3	18.5	15.2	0.1	1.2	18.3	15.3	0.2	1.7	18.5	15.2	0.2	1.9	0.3
23	17.5	15.3	-0.7	0.4	17.8	15.2	-0.7	0.6	17.4	15.3	-0.9	0.7	17.8	15.3	-0.7	1.1	0.4
24*1								0.0							1	<u> </u>	
25	18.0	15.6	-0.3	0.7	18.2	15.4	-0.5	0.6	18.0	15.6	-0.4	1.2	18.2	15.5	-0.5	1.2	0.2
26	18.3	15.1	0.3	0.7	18.7	15.3	0.5	1.0	18.4	15.2	0.4	1.3	18.7	15.3	0.5	1.4	0.4
27	17.5	14.5	-0.8	0.5	17.6	14.3	-1.1	0.0	17.6	14.6	-0.8	1.1	17.7	14.4	-1.0	1.0	0.2
28	17.8	15.1	0.3	-0.2	18.1	15.1	0.5	-0.2	17.8	15.1	0.2	0.2	18.1	15.2	0.4	0.5	0.3
29	<b>18</b> .6	15.8	0.8	0.5	18.9	15.8	0.8	1.2	18.7	15.9	0.9	1.0	18.9	15.8	0.8	1.2	0.3
30	18.3	15.1	-0.3	0.2	18.6	1 <u>5.1</u>	-0.3	0.5	18.4	15.3	-0.3	0.9	18.5	15.2	-0.4	0.9	0.3
31	18.4	15.1	0.1	0.8	18.5	14.9	-0.1	0.8	18.5	15.3	0.1	1.2	18.5	14.9	0.0	1.0	0.1
32	17.8	14.5	-0.6	0.3	17.9	14.4	-0.6	0.0	17.5	14.3	-1.0	0.2	17.9	14.4	-0.6	0.3	0.4

Tes	t Point	#4
3 - 2 Balancia	كنار بالمحمد والمحمد و	فتجر فيند وريقا وحدو

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#### Kenwood St. & Fern St. 24 Hour Level Variation

Equipment Used:

100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057( Date: 02/03/07

Run	1				2				3		3/N 43		4				
	Time: 0	0:23:00	_		Time: 0	6:23:06			Time: 1	2:28:40			Time: 1	8:26:28			_
Temp	40				34				30				35				
Chan	Vid	Aud	Adjoint	6 Mth		Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
33	18.6	15.6	0.8	0.7	18.6	15.4	0.7	0.6	18.4	15.5	0.9	0.5	18.6	15.4	0.7	0.8	0.2
34	18.1	15.2	-0.5	0.1	18.4	15.2	-0.2	0.5	18.0	15.2	-0.4	0.2	18.4	15.3	-0.2	0.6	0.4
35	18.0	15.1	-0.1	0.0	18.9	15.1	0.5	0.7	17.8	14.9	-0.2	0.1	18.4	15.3	0.0	0.5	1.1
36	18.6	15.3	0.6	0.6	19.5	15.8	0.6	1.4	18.6	15.4	0.8	1.1	18.9	15.3	0.5	1.0	0.9
37	18.5	15.4	-0.1	0.2	18.8	15.5	-0.7	0.4	18.4	15.4	-0.2	0.5	18.8	15.5	-0.1	0.7	0.4
38	18.7	15.5	0.2	0.7	18.8	15.4	0.0	0.8	18.6	15.5	0.2	1.0	19.2	15.7	0.4	1.3	0.6
39	18.6	14.9	-0.1	1.0	18.9	15.1	0.1	1.2	18.5	14.9	-0.1	1.1	18.6	14.9	-0.6	1.2	0.4
40*1																	
41	18.8	15.2	0.2	0.3	18.8	15.3	-0.1	0.3	18.6	15.1	0.1	0.4	18.6	15.2	0.0	0.1	0.2
42	18.6	15.6	-0.2	0.3	18.5	15.7	-0.3	0.1	18.7	15.7	0.1	0.6	18.5	15.7	-0.1	0.3	0.2
43	18.7	15.8	0.1	-0.3	19.0	15.5	0.5	0.1	18.6	15.8	-0.1	0.1	18.7	15.4	0.2	0.1	0.4
44	<u>19.5</u>	15.4	0.8	-0.3	20.0	15.6	1.0	0.2	19.5	15.5	0.9	0.0	<u>19.</u> 9	15.6	1.2	0.2	0.5
45	18.8	15.4	-0.7	-0.5	19.0	15.3	-1.0	-0.6	18.5	15.2	-1.0	-0.5	<u>19.0</u>	15.5	-0.9	-0.3	0.5
46	18.6	14.9	-0.2	-0.5	19.0	<u>15.</u> 1	0.0	-0.6	18.7	15.1	0.2	-0.6	<u>18.8</u>	15.0	-0.2	-0.5	0.4
47	16.9	14.6	-1.7	-0.9	16.8	14.4	-2.2	-1.1	16.8	14.6	-1.9	-0.5	17.0	14.7	-1.8	-0.5	0.2
48	19.3	15.2	2.4	0.6	19.6	15.3	2.8	0.8	18.9	14.9	2.1	0.6	19.4	15.1	2.4	1.2	0.7
49	19.2	14.9	-0.1	0.6	19.4	15.0	-0.2	0.8	19.2	14.9	0.3	0.7	19.4	15.1	0.0	0.9	0.2
50	18.9	15.4	-0.3	0.2	19.2	15.5	-0.2	0.4	18.6	15.2	-0.6	0.1	18.9	15.2	-0.5	0.3	0.6
51	19.9	15.3	1.0	0,4	20.2	15.4	1.0	0.5	19,7	15.1	1.1	0.5	19.9	15.2	1.0	0.9	0.5
52	19.5	14.6	-0.4	-0.8	19.7	14.6	-0.5	-0.4	19.3	14.4	-0.4	-0.5	19.5	14.4	-0.4	-0.3	0.4
53	19.7	15.2	0.2	-0.5	<u>19.9</u>	15.1	0.2	-0.6	19.6	15.1	0.3	-0.4	19.7	15.0	0.2	-0.3	0.3
54	19.5	14.9	-0.2	-0.3	19.7	14.9	-0.2	-0.3	19.6	15.1	0.0	0.1	19.7	15.0	0.0	0.1	0.2
55	20.4	15.3	0.9	0.2	20.8	15.4	1.1	0.7	20.4	15.3	0.8	0.7	20.2	15.0	0.5	0.3	0.6
56	19.9	14.9	-0.5	-0.1	20.1	14.8	-0.7	0.2	19.9	14.9	-0.5	0.5	20.0	14.9	-0.2	0.2	0.2
57	<u>2</u> 0.1	14.9	0.2	0.1	20.5	15.1	0.4	0.6	20.3	15.2	0.4	0.9	20.4	15.1	0.4	0.4	0.4
58*1	00.5	45.0		0.0	00.0	45.4			20.4	15.0	01	0.7	20.6	15.1	0.2	0.9	0.4
<u>59</u> 60	20.5	15.0 15.2	0.4	0.3	20.8 20.5	15.1 15.3	0.3	0.8	20.4 20.2	15.0	0.1	0.7	20.5	15.1	-0.1	0.9	0.4
61	19.7	15.2	-0.5	-0.4	20.5	15.5	-0.5	-0.1	20.2	15.8	-0.2	0.3	20.5	15.9	-0.1	0.4	0.5
62	20.7	15.4	1.0	0.5	20.0	16.0	0.9	0.7	20.6	15.9	0.5	0.8	20.2	16.0	0.6	0.8	0.3
63	20.7	15.6	0.3	0.0	20.8	15.6	0.3	0.3	20.9	15.6	0.3	0.3	21.1	15.7	0.3	0.5	0.3
64	20.1	15.0	-0.9	-0.3	20.3	15.1	-0.9	0.1	20.5	15.2	-0.8	0.3	20.3	15.2	-0.8	0.3	0.2
65	20.5	15.5	0.4	0.5	20.7	15.5	0.4	0.9	20.3	15.4	0.2	0.8	20.6	15.6	0.3	0.8	0.4
66	20.8	15.6	0.3	0.8	20.9	15.5	0.2	0.7	20.6	15.5	0.3	0.9	20.7	15.5	0.1	0.7	0.3
67	21.8	15.2	1.0	0.5	22.0	15.2	1.1	0.5	21.9	15.3	1.3	0.9	21.5	14.8	0.8	0.4	0.5
68	21.4	14.7	-0.4	0.4	21.7	14.8	-0.3	0.7	21.6	14.9	-0.3	0.9	21.7	15.0	0.2	0.9	0.3
69	21.6	16.4	0.2	0.5	21.5	16.0	-0.2	0.4	21.3	16.1	-0.3	0.4	21.5	16.1	-0.2	0.2	0.3
70	22.5	15.4	0.9	0.7	22.8	15.5	1.3	1.0	22.4	15.3	1.1	1.1	22.8	15.6	1.3	1.5	0.4
71	22.4	14.8	-0.1	1.6	22.7	14.8	-0.1	1.9	22.5	15.0	0.1	2.1	22.6	14.8	-0.2	2.0	0.3
72	20.5	14.8	-1.9	1.4	20.7	14.7	-2.0	1.6	20.4	14.8	-2.1	1.6	20.7	14.9	-1.9	1.5	0.3

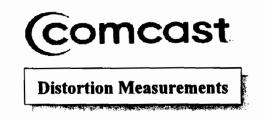
(comcast

Kenwood St. & Fern St. 24 Hour Level Variation

	Equipr	nent Us	sed:	100' d	rop, Wa	vetek	SDA-50	00 Sigr	al Leve	el Meter	S/N 43	4057(		Date: (	02/03/0	7	
Run	1				2				3				4				
	Time: 0	0:23:00			Time: 0	5:23:06			Time: 1	2:28:40			Time: 1	8:26:28			
Temp	40				34				30				35				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
73	2 <u>1.9</u>	<u>15</u> .1	1.4	1.3	22.3	15.3	1.6	1.8	21.7	15.0	1.3	1.5	22.0	15.1	1.3	1.6	0.6
74	22.3	15.5	0.4	2.4	22.5	15.4	0.2	2.4	22.1	15.3	0.4	2.6	22.4	15.5	0.4	2.7	0.4
75*1																	
76	21.4	15.0	0.0	1.6	21.4	14.8	-0.3	1.5	21.2	14.9	-0.1	1.8	21.2	14.6	-0.3	1.5	0.2
77	21.4	15.4	0.0	1.9	21.7	15.3	0.3	2.1	21.3	15.2	0.1	1.9	21.5	15.2	0.3	2.0	0.4
78*1																	
Min Value	14.0	11.5	-1.9	-0.9	14.4	11.9	-2.2	-1.1	14.0	11.7	-2.1	-0.6	14.2	11.7	-1.9	-0.5	0.1
Max Value	22.5	16.4	2.4	2.6	22.8	16.2	2.8	3.6	22.5	16.9	2.1	3.1	22.8	16.5	2.4	2.7	1.8

Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Compared the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

## Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

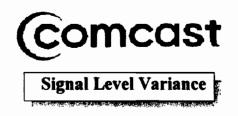
The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/- 2dB.

#### (comcast

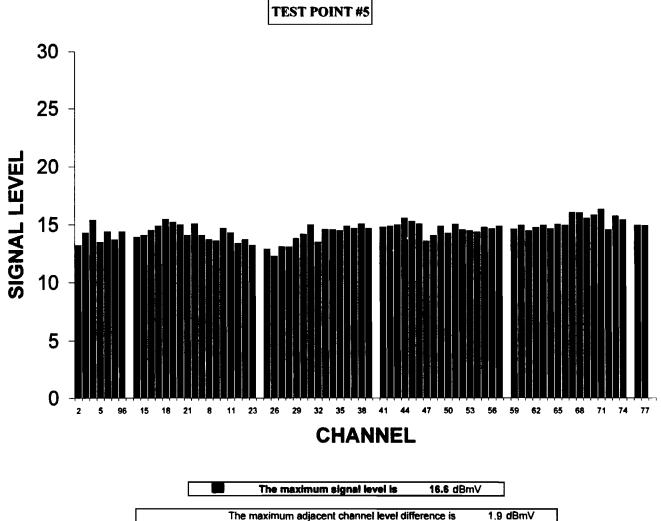
#### 1121 Allison St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

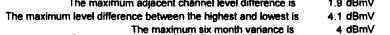
	Date: 02/2	7/07	Time: 5:19	PM	Temp: 40					
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	1.8	1.0	70.6	67.8	51.7	4.5000			
	95	1.8	0.7	69.6	60.8	51.6	4.5000			
	21	1.2	1.0	70.3	72.3	52.5	4.5001			
	8	1.8	0.9	67.2	67.8	53.3	4.5001			
	28	0.9	0.8	70.8	75.9	51.9	4.5000			
	32	1.4	0.9	72.6	67.7	52.2	4.5001			
	47	1.2	0.8	75.2	64.7	51.4	4.5000			
	56	0.9	0.9	65.7	60.4	50.4	4.5000			
	72	0.9	1.3	69.5	67.0	50. <del>9</del>	4.5000			
Minimum v	inimum values: 0.9		0.7	65.7	60.4	50.4	4.5000			
Maximum	aximum values: 1.8		1.3	75.2	75.9	53.3	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.





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	Test Point #5																
	(cor	~~~	~+				And the second	1121 AI	lison St		et.						
	CO	ncu	31						vel Vari								
	Equipn	nent Us	ed:	100' d	rop, Wa	vetek S	SDA-50	00 Sigr	nal Leve	I Meter	S/N 43	34057(		Date:	02/03/0	7	
Run	1				2				3				4				
	Time: 0	0:26:03			Time: O	5:25:49			Time: 1	2:34:47			Time: 1	8:32:20			
Temp	40				34				30				35				
Chan	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
1	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Vid Diff
2	13.2	12.3		-1.0	13.3	12.2		-1.3	13.0	12.2		-0.7	13.0	12.1		-1.0	0.3
3	14.3	15.3	1.1	-1.1	14.4	15.2	1.1	-0.6	14.3	15.3	1.3	-0.5	14.4	15.4	1.4	-0.6	0.1
4	15.4	16.1	1.1	0.6	13.9	14.5	-0.5	-1.3	13.7	14.4	-0.6	-0.8	14.6	15.3	0.2	-0.1	1.7
5	13.5	14.0	-1.9	-1.1	14.0	14.4	0.1	-1.3	1 <u>3.9</u>	14.5	0.2	-1.3	14.3	14.9	-0.3	-1.1	0.8
6	14.4	15.5	0.9	-0.5	14.7	15.7	0.7	-0.5	14.7	15.8	0.8	1.0	14.5	15.6	0.2	0.4	0.3
95	13.7	14.3	-0.7	-2.2	13.9	14.3	-0.8	-2.3	1 <u>3.8</u>	14.4	-0.9	-1.3	13.9	14.5	-0.6	-1.6	0.2
96	14.4	15.2	0.7	-2.1	14.5	15.2	0.6	-1.8	14.4	15.1	0.6	-1.6	14.4	15.2	0.5	-1.9	0.1
99*1																	
14	13.9	15.0	-0.5	-1.5	14.1	15.0	-0.4	-1.5	13.9	14.9	-0.5	-1.1	14.0	15.1	-0.4	-0.8	0.2
15	14.1	14.1	0.2	-1.7	14.1	14.0	0.0	-1.8	14.1	14.2	0.2	-1.2	14.1	14.2	0.1	-1.5	0.0
16	14.5	16.3	0.4	-1.2	14.9	16.6	0.8	-0.9	14.7	16.6	0.6	<u>-0.5</u>	14.8	16.7	0.7	-0.6	0.4
17	14.9	15.1	0.4	-0.3	15.1	15.2	0.2	-0.5	15.0	15.2	0.3	0.2	14.7	14.9	-0.1	-0,1	0.4
18	15.5	16.2	0.6	-0.4	15.7	16.2	0.6	0.1	15.5	16.2	0.5	0.2	15.5	16.2	0.8	-0.4	0.2
19	15.2	15.1	-0.3	-0.3	15.2	15.0	-0.5	-0.1	<u>15.1</u>	15.1	-0.4	0.3	15.1	15.1	-0.4	-0.2	0.1
20	15.0	15.2	-0.2	-0.9	15.1	15.1	-0.1	-1.1	15.0	15.1	-0.1	-0.4	14.9	15.0	-0.2	-0.6	0.2
21	14.1	13.9	-0.9	-1.9	14.4	14.1	-0.7	-1.5	14.1	14.0	-0.9	-1.4	14.5	14.4	-0.4	-1.4	0.4
<b>22</b> ·	15.1	15.4	1.0	-0.9	15.4	15.4	1.0	-0.8	15.1	1 <u>5.4</u>	1.0	-0.4	15.1	15.3	0.6	-0.9	0.3
7	14.1	14.3	-1.0	-1.7	14.1	14.1	-1.3	-2.5	13.8	14.1	-1.3	•2.1	14.6	14.8	-0.5	-1.0	0.8
8	13.7	14.2	-0.4	-2.5	14.0	14.2	-0.1	-1.9	13.6	14.1	-0.2	-1.2	13.7	14.0	-0.9	-2.4	0.4
9	13.6	14.2	-0.1	-2.8	13.4	13.7	-0.6	-2.7	13.8	14.4	0.2	-1.9	14.7	15.2	1.0	-1.5	1.3
10	14.7	16.1	1.1	-1.8	15.2	16.2	1.8	-1.8	14.4	15.9	0.6	-1.7	14.5	15.6	-0.2	-1.2	0.8
11	14.3	15.7	-0.4	-1.8	14.2	15.3	-1.0	-1.7	14.0	15.6	-0.4	-1.9	14.0	15.3	-0.5	-2.2	0.3
12	13.4	15 <u>.0</u>	-0.9	-2.0	13.7	14.8	-0.5	-1.9	13.2	14.8	-0.8	-2.0	13.5	14.9	-0.5	-2.1	0.5
13	13.7	15.2	0.3	-2.1	13.9	15.1	0.2	-1.9	13.8	15.5	0.6	-1.4	14.0	15.2	0.5	-1.5	0.3
23	13.2	15.5	-0.5	-2.8	13.4	15.4	-0.5	-2.6	13.0	15.5	-0.8	-2.5	13.2	15.3	-0.8	-2.6	0.4
24*1										40.0			40.0	45.0			
25	12.9	16.2	-0.3	-2.7	13.1	15.8	-0.3	-2.8	12.5	16.6	-0.5	-2.6	12.9	15.9	-0.3	-2.6	0.6
26	12.3	13.8	-0.6	-4.0	13.0	14.5	-0.1	-3.1	12.6	13.9	0.1	-2.8	12.5	14.0	-0.4	-3.4	0.7
27	13.1	13.8	0.8	-2.2	13.4	13.8	0.4	-2.7	13.3	14.0	0.7	-1.4	13.3	13.9	0.8	-2.0	0.3
28	13.1	14.5	0.0	-2.7	13.4	14.6	0.0	-2.6	13.2	14.6	-0.1	-1.9	13.2	14.5	-0.1	-2.4	0.3
29	13.8	14.9	0.7	-2.5	14.3	15.2	0.9	-2.0	13.7	14.8	0.5	-1.9	13.8	14.8	0.6	-2.0	0.6
30	14.2	14.9	0.4	-2.0	14.7	15.1	0.4	-2.0	14.3	15.1	0.6	-1.5	14.1	14.7	0.3	-1.9	0.6
31	15.0	15.1	0.8	-1.9	15.0	14.9	0.3	-1.8	14.4	14.6	0.1	-1.5	14.9	15.0	0.8	-1.6	0.6
32	13.5	14.0	-1.5	-2.2	13.9	14.2	-1.1	-2.1	13.6	14.1	-0.8	-1.5	13.8	14.2	-1.1	-1.7	0.4

	(cor	nca	ct				177720-085 1	1121 A	lison St	inder einer State State an	er -						
	(00)								vel Vari								
	Equipn	nent Us	ed:	100' d	rop, Wa	vetek S	SDA-50	00 Sigr	al Leve	el Meter	S/N 43	4057(		Date: 0	2/03/07	7	
Run	1	_			2				3				4				
	Time: 0	0:26:03			Time: 0	8:25:49			Time: 1	2:34:47	_		Time: 1	8:32:20			
Temp	40	A		0.044	34	<b>A</b>		0.14	30			0.14	35	<b>A A</b>			
Chan 33	Vid 14.6	Aud		6 Mth	Vid	Aud			Vid		Adjent		Vid		the state of the s	6 Mth	
33	14.6	15.4 15.5	1.1 0.0	<u>-1.5</u> -1.6	14.8 14.7	15.4 15.4	0.9	-1.4 -1.5	14.4 14,2	15.2 15.2	0.8 -0.2	-0.8 -1.4	14.8 14.5	15.4 15.4	1.0	-0.7 -1.6	<u>0.4</u> 0.5
35	14.5	15.0	-0.1	-1.5	14.8	15.1	0.1	-1.5	14.6	15.2	0.4	-0.7	14.7	15.4	0.2	-0.9	0.3
36	14.9	15.5	0.4	-0.9	15.4	15.8	0.6	-0.5	14.9	15.6	0.4	-0.2	15.2	15.7	0.2	0.1	0.5
37	14.7	15.3	-0.2	-1.8	15.2	15.5	-0.2	-1.2	14.8	15.5	-0.1	-1.0	15.2	15.8	0.0	-1.0	0.5
38	15.1	15.2	0.4	•1.0	15.1	15.0	-0.1	-1.1	14.9	15.1	0.1	-0.4	14.9	15.0	-0.3	-0.9	0.2
39	14.7	14.9	-0.4	-1.1	14.9	14.8	-0.2	-0.9	14.6	14.8	-0.3	-0.6	14.4	14.6	-0.5	-1.0	0.5
40*1																	
41	14.8	15.5	0.1	-1.2	15.1	15.5	0.2	-1.1	14.8	15.6	0.2	-0.6	14.9	15.4	0.5	-0.7	0.3
42	14.9	15.4	0.1	-1.5	15.1	15.4	0.0	-1.2	14.6	15.2	-0.2	-0.8	14.7	15.2	-0.2	-1.2	0.5
43	15.0	15.3	0.1	-1.2	15.3	15.5	0.2	-1.1	15.0	15.3	0.4	-0.5	15.1	15.4	0.4	-0.8	0.3
44	15.6	15.4	0.6	-0.4	15.7	15.3	0.4	-0.4	15.4	15.2	0.4	0.2	15.6	15.3	0.5	0.0	0.3
45	15.3	15.8	-0.3	-0.9	15.5	15.8	-0.2	-0.9	15.1	15.7	-0.3	-0.6	15.3	15.6	-0.3	-0.6	0.4
46	15.1	16.3	-0.2	-1.5	15.3	16.3	-0.2	<u>-1.5</u>	15.2	16.6	0.1	-0.7	15.4	16.6	0.1	-1.0	0.3
47	13.6	14.7	-1.5	-0.7	13.7	14.6	-1.6	-0.8	13.4	14.4	-1.8	-0.1	13.6	14.7	-1.8	-0.4	0.3
48	14.1	15.0	0.5	-1.4	14.5	15.1	0.8	-1.2	14.4	15.3	1.0	-0.3	14.3	15.1	0.7	-0.8	0.4
49	14.9	15.1	0.8	-0.5	15.0	15.0	0.5	-0.9	14.7	15.1	0.3	0.0	15.0	15.2	0.7	0.0	0.3
50	14.3	15.1	-0.6	-1.8	14.7	15.3	-0.3	-1.4	14.2	15.0	-0.5	-1.0	14.5	15.2	-0.5	-1.4	0.5
51	15.1	15.5	0.8	-1,4	15.2	15.4	0.5	-1.6	14.9	15.3	0.7	-1.0 -0.6	15.0	15.3	0.5	-1.4 -1.2	0.3
52	14.6	15.1	-0.5	-1.3	14.7	15.0	-0.5	-1.6 -1.6	14.4 14.3	15.0 14.9	-0.5 -0.1	-0.6	<u>14.4</u> 14.4	14.8 14.9	-0.6	-1.2	0.3
<u>53</u> 54	14.5 14.4	15.0 14.9	-0.1 -0.1	-1.5 -2.5	14.7 14.7	15.0 15.0	0.0	-1.0	14.3	14.8	0.0	-1.2	14.5	15.0	0.0	-2.1	0.4
55	14.8	14.8	0.4	-1.0	14.9	15.0	0.0	-2.5	14.5	14.8	0.0	-0.5	14.8	15.1	0.1	-0.8	0.4
56	14.7	15.1	-0.1	-1.4	14.6	14.8	-0.3	-1.4	14.4	15.0	-0.1	-1.2	14.5	14.8	-0.3	•1.1	0.3
57	14.9	15.0	0.2	-1.2	15.4	15.3	0.8	-0.8	14.7	15.0	0.3	-0.6	14.8	14.8	0.3	-0.8	0.7
58*1	1.4.0							5.0									
59	14.7	15.0	-0.2	-1.2	15.0	15.1	-0.4	-1.0	14.6	15.1	-0.1	-0.5	14.8	15.0	0.0	-0.6	0.4
60	15.0	15.5	0.3	-0.6	15.1	15.4	0.1	-0.6	14.7	15.3	0.1	-0.3	15.0	15.5	0.2	-0.4	0.4
61	14.5	15.4	-0.5	-1.6	14.6	15.3	-0.5	-1.4	14.8	15.9	0.1	-0.4	15.0	15.8	0.0	-0.8	0.5
62	14.8	15.6	0.3	-1.6	15.1	15.7	0.5	-1.4	14.8	15.7	0.0	-0.8	15.0	15.6	0.0	-0.9	0.3
63	15.0	1 <u>5</u> .3	0.2	-0.9	15.3	15.4	0.2	-0.6	15.0	15.5	0.2	-0.3	15.0	15.3	0.0	-0.6	0.3
64	14.7	15.2	-0.3	-0.3	14.9	15.3	-0.4	-0.1	14.2	14.9	-0.8	-0.3	14.7	15.2	-0.3	0.0	0.7
65	15.1	15.3	0.4	-0.2	15.4	15.5	0.5	-0.2	15.1	15.5	0.9	0.4	15.3	15.5	0.6	-0.2	0.3
66	15.0	15.4	-0.1	0.1	15.3	15.5	-0.1	0.0	14.9	15.5	-0.2	0.5	15.1	15.5	-0.2	0.2	0.4
67	16.1	15.4	1.1	0.3	16.3	15.4	1.0	0.3	16.0	15.4	1.1	0.7	15.8	15.0	0.7	0.0	0.5
68	16.1	15.5	0.0	-0.1	16.3	15.5	0.0	0.0	15.8	15.3	-0.2	0.3	16.1	15.4	0.3	0.1	0.5
69	15.6	16.5	-0.5	-0.6	15.6	16.3	-0.7	-0.8	15.5	16.4	-0.3	0.2	15.5	16.3	-0.6	-0.5	0.1
70	15.9	14.9	0.3	-0.7	16.1	15.0	0.5	-0.4	15.8	14.9	0.3	0.1	16.1	15.1	0.6	0.0	0.3
71	16.4	14.9	0.5	1.2	16.5	14.9	0.4	1.2	<u>16.5</u> 14.6	15.2 15.3	0.7	2.5	<u>16.5</u> 14.7	15.0	0.4	2.1 2.6	0.1
72	14.6	15.2	-1.8	1.8	15.0	15.3	-1.5	2.0	14.0	15.5	-1.8	2.0	14./	10.2	-1.0	2.0	0.4

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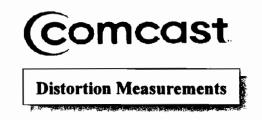
(comcast

1121 Allison St. 24 Hour Level Variation

	1         2           Time: 00:26:03         Time: 06:25:49           40         34           Vid         Aud         Adjent         6 Mth           15.8         15.2         1.2         0.4         16.0         15.2         1.0           15.5         15.1         -0.3         0.3         15.7         15.1         -0.3           15.0         15.3         -0.5         0.0         15.3         15.3         -0.4           15.0         15.9         0.0         0.7         15.1         15.9         -0.2						00 Sigr	nal Level Meter S/N 434057( Date: 02/03/07									
Run	1				2				3				4				
	Time: 0	0:26:03			Time: 0	6:25:49			Time: 1	2:34:47			Time: 1	8:32:20			
Temp	40				_34				30				35				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
73	1 <u>5</u> .8	15.2	1.2	0.4	16.0	15.2	1.0	0.4	15.8	15.3	1.2	1.7	15.8	15.2	<b>1.1</b>	1.5	0.2
74	15.5	15.1	-0.3	0.3	15.7	15.1	-0.3	0.2	15.4	15.1	-0.4	1.5	15.6	15.1	-0.2	1.3	0.3
75*1																	
76	15.0	15.3	-0.5	0.0	15.3	15.3	-0.4	0.5	15.1	15.4	-0.3	1.8	15.1	15.3	-0.5	1.0	0.3
77	15.0	15.9	0.0	0.7	15.1	15.9	-0.2	0.6	14.8	15.7	-0.3	2.0	14.9	15.9	-0.2	1.2	0.3
78*1																	
Min Value	12.3	12.3	-1.9	-4.0	13.0	12.2	-1.6	-3.1	12.5	12.2	-1.9	-2.8	12.5	12.1	-1.8	-3.4	0.0
Max Value	16.4	16.5	1.2	1.8	16.5	16.6	1.8	2.0	16.5	16.6	1.3	2.8	16.5	16.7	1.4	2.6	1.7

Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

## Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/- 2dB.

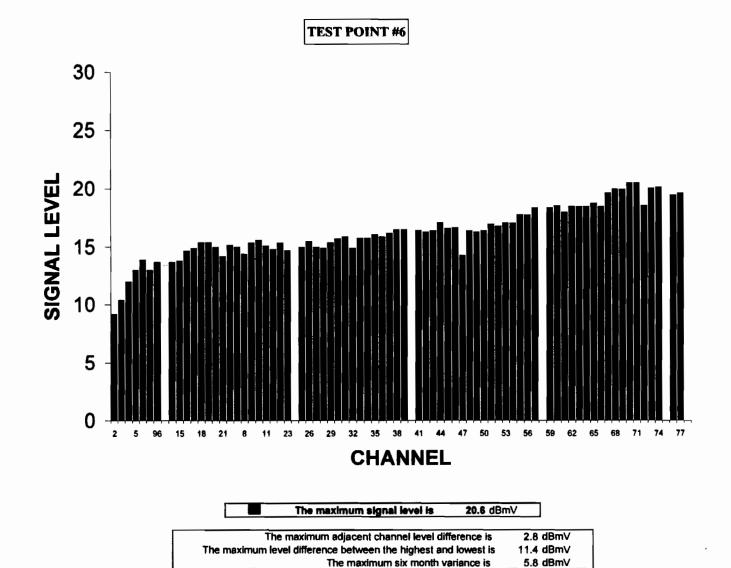
## 901 N. Kemper St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

	Date: 02/2	7/07	Time: 4:02	PM	Temp: 40					
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	1.2	0.9	74.0	67.6	49.2	4.5000			
	95	2.0	0.8	70.6	64.7	50.2	4.5000			
	21	1.0	1.1	71.9	65.1	50.6	4.5001			
	8	1.5	0.8	73.3	64.1	50.9	4.5001			
	28	1.0	0.8	70.7	68.5	51.1	4.5000			
	32	0.9	0.9	70.7	71.9	50.6	4.5001			
	47	1.1	0.9	69.4	67.4	50.1	4.5000			
	56	1.0	0.9	66.0	66.3	49.2	4.5000			
	72	0.7	1.2	68.4	62.3	50.4	4.5000			
Minimum v	alues:	0.7	0.8	66.0	62.3	49.2	4.5000			
Maximum	imum values: 2.0		1.2	74.0	71.9	51.1	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



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	~							lour Le								_	
	Equipr	nent Us	ed:	100° đ		vetek :	SDA-50	00 Sign		el Meter	S/N 43	4057(		Date:	02/03/0	7	
Run	1	0.40.40			2				3	0.40.04			4				
Temp	Time: 0 40	0:12:12			Time: 0 34	0:09:58		_	Time: 1 30	2:12:01			Time: 1 35	8:09:26			
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint	C Mb	24 HR
Crian	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Vid Diff
2	9,2	11.6		-0.6	11.8	11.6		2.2	11.7	11.6		2.1	11.7	11.5		2.3	2.6
3	10.4	13.4	1.2	0.2	13.3	14.9	1.5	3.1	13.1	14.8	1.4	3.1	13.3	15.0	1.6	3.2	2.9
4	12.0	12.3	1.6	1.9	14.1	15.3	0.8	3.1	14.4	15.9	1.3	3.6	13.3	14.5	0.0	2.3	2.4
5	13.0	14.2	1.0	2.4	13.5	14.7	-0.6	2.3	12.9	14.2	-1.5	2.1	12.7	14.0	-0.6	2.3	0.8
6	13.9	15.4	0.9	3.1	14.1	15,4	0.6	3.3	13.8	15.3	0.9	3.2	13.9	15.3	1.2	3.5	0.3
95	13.0	14.0	-0.9	1.0	13.1	13.9	-1.0	1.4	12.5	13.5	-1.3	0.6	13.0	14.0	-0.9	1.2	0.6
96	13.7	14.8	0.7	1.8	14.0	14.9	0.9	2.1	13.7	14.8	1.2	2.0	13.8	14.8	0.8	2.1	0.3
99*1				-													
14	13.7	15.0	0.0	2.4	13.8	15.0	-0.2	2.7	13.6	15.0	<u>-0</u> .1	2.9	13.6	14.9	-0.2	1.8	0.2
15	13.8	14.1	0.1	2.8	13.9	14.2	0.1	2.7	13. <u>6</u>	13.9	0.0	2.6	13.8	14.2	0.2	2.9	0.3
16	14.7	16.8	0.9	3.8	14.7	16.7	0.8	3.7	<u>14.</u> 6	16.7	1.0	3.9	14.4	16.7	0.6	3.9	0.3
17	14.9	14.9	0.2	4.0	14.9	14.9	0.2	4.1	14.8	14.9	0.2	4.0	14.8	15.0	0.4	3.9	0.1
18	15.4	15.5	0.5	4.4	15.5	15.5	0.6	4.5	15.1	15.2	0.3	4.2	15.2	<u>15.3</u>	0,4	4.3	0.4
19	15.4	15.2	0.0	4.5	15.6	15.3	0.1	5.1	15.0	14.9	-0.1	4.5	15.4	15.2	0.2	4.7	0.6
20	15.0	15.3	-0.4	3.6	15.3	15.4	-0.3	4.1	15.1	15.4	0.1	4.0	15.2	15.4	-0.2	4.1	0.3
21	14.2	13.9	-0.8	3.6	14.1	13.8	-1.2	3.6	14.3	14.1	-0.8	4.2	14.3	14.0	-0.9	4.1	0.2
22	15.2	15.1	1.0	4.1	15.3	15.1	1.2	4.2	15.2	15.2	0.9	4.2	15.1	15.0	0.8	4.0	0.2
7	15.0	14.9	-0.2	3.9	15.3	15.0	0.0	4.1	15.0	14.8	-0.2	3.6	15.0	14.7	-0.1	3.9	0.3
8	14.4	14.4	-0.6	3.1	14.6	14.3	-0.7	3.1	14.6	14.6	-0.4	3.5	14.6	14.5	-0.4	3.5	0.2
9	15.4	15.4	1.0	5.1	16.0	15.8	1.4	4.6	14.7	14.8	0.1	3.1	15.8	15.7	1.2	4.3	1.3
10	15.6	15.7	0.2	3.9	15.8	15.7	-0.2	3.5	15.4	15.6	0.7	3.6	15.7	15.7	-0.1	4.1	0.4
11	15.1	15.2	-0.5	3.2	15.7	15.5	-0.1	3.7	15.3	15.5	-0.1	3.5	15.5	15.4	-0.2	3.8	0.6
12	14.8	14.8	-0.3	3.2	15.4	15.2	-0.3	3.6	14.9	14.9	-0.4	3.3	15.2	15.0	-0.3	3.7	0.6
13	15.4	15.3	0.6	4.0	15.8	15.5	0.4	4.3	15.3	15.2 15.1	0.4	4.3 3.4	15.6 14.8	15.3 14.9	0.4	4.5	0.5
23	14.7	15.0	-0.7	3.4	14.9	15.0	-0.9	3.2	14.7	15.1	-0.8	3.4	14.8	14.9	-0.8	3.7	0.2
24*1	45.0	45.7	0.2	26	45.4	15.8	0.5	3.7	15.0	15.8	0.3	3.8	15.2	15.8	0.4	4.1	0.4
25	15.0	15.7	0.3	3.6 4.0	15.4 15.7	15.8	0.5	4.3	15.0	15.6	0.5	4.4	15.2	15.6	0.4	4.6	0.4
26 27	15.5 15.0	15.3 14.3	-0.5	4.0	15.7	15.2	-0.5	4.3 3.8	15.5	14.2	-0.6	3.9	15.7	15.3	-0.5	4.0	0.2
27	15.0	14.3	-0.5	3.7	15.Z	14.2	-0.5	3.5	14.9	15.1	0.0	3.9	15.2	14.3	-0.5	3.5	0.5
28	14.9	15.1	0.1	3.3	15.4	15.2	0.2	3.5	14.9	15.6	0.0	3.9	15.1	15.7	0.8	4.3	0.5
30	15.4	15.4	0.5	3.7	15.0	15.5	0.4	3.9	15.6	15.0	0.0	4.1	15.8	15.2	-0.1	4.2	0.3
30	15.7	15.2	0.3	4.2	16.2	15.2	0.1	4.7	15.9	15.2	0.0	4.4	16.3	15.2	0.5	4.8	0.4
32	14.9	14.3	-1.0	3.1	15.3	14.4	-0.9	3.6	14.9	14.4	-1.0	3.4	15.2	14.5	-1.1	3.6	0.4
	14.3	14.3	-1.0	9.1	10.0	17,4	-0.0	0.0	14.0	14.4	-1.0	0.7	10.4	14.0		0.0	<u> </u>

•	Γ	C.	t	P	0	in	t	#	6		
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(comcast Equipment Used:

#### 901 N. Kemper St. 24 Hour Level Variation 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057(

Date: 02/03/07

Run	Run 1 2								3				4				
	Time: 0	0:12:12			Time: O	5:09:58			Time: 1	2:12:01			Time: 1	8:09:26			
Temp	40				34				30				35				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adicnt	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
33	15.8	15.3	0.9	3.5	16.1	15.3	0.8	3.8	16.1	15.6	1.2	4.1	16.2	15.5	1.0	4.2	0.4
34	15.8	15.2	0.0	3.7	16.3	15.4	0.2	4.1	15.9	15.3	-0.2	4.0	16.0	15.3	-0.2	4.2	0.5
35	16.1	15.2	0.3	3.8	16.3	15.2	0.0	4.1	16.0	15.1	0.1	3.9	16.3	15.3	0.3	4.4	0.3
36	15.9	15.0	-0.2	4.4	14.3	13.3	-2.0	2.7	16.0	15.3	0.0	4.7	16.2	15.3	-0.1	4.9	1.9
37	16.2	15.5	0.3	4.0	16.5	15.5	2.2	4.0	16.1	15.4	0.1	4.2	16.3	15.5	0.1	4.4	0.4
38	16.5	15.3	0.3	4.0	16.9	15.5	0.4	4.4	16.5	15.4	0.4	4,4	16.7	15.3	0.4	4.3	0.4
39	16.5	15.0	0.0	4.0	16.8	15.1	-0.1	4.5	16.3	14.8	-0.2	4.2	16.5	14.9	-0.2	4.4	0.5
40*1																	
41	16.4	15.4	-0.1	4.1	16.5	1 <u>5.</u> 4	-0.3	4.0	16.5	15.6	0.2	4.4	16.5	15.4	0.0	4.4	0.1
42	<u>16.</u> 3	<u>15.6</u>	<u>-0.1</u>	3.7	<u>16.7</u>	15.8	0.2	3.9	16.2	15.5	-0.3	3.8	1 <u>6.</u> 4	15.5	-0.1	4,1	0.5
43	16.4	15.5	0.1	3.0	16.8	15.7	0.1	3.6	1 <del>6</del> .4	15.5	0.2	3.3	<u>16.6</u>	15.6	0.2	3.7	0.4
44	17.1	15.5	0.7	3.8	17.1	<u>15.3</u>	0.3	4.0	<u>17.0</u>	15.4	0.6	4.2	17.1	15.4	0.5	4.2	<u>0</u> .1
45	16.6	15.6	-0.5	4.0	16.9	15.7	-0.2	4.1	16.6	15.6	-0.4	4.5	16.6	15.5	-0.5	4.3	0.3
46	16.7	15.4	0.1	4.9	16.9	15.4	0.0	5.0	16.6	15.4	0.0	4.1	16.8	15.4	0.2	4.3	0.3
47	14.3	14.9	-2.4	2.9	14.1	14.5	-2.8	2.6	14.4	15.0	-2.2	3.5	14.5	15.0	-2.3	4.2	0.4
48	16.4	16.1	2.1	3.6	16.5	16.0	2.4	3.5	16.5	16.2	2.1	4.5	16.6	16.2	2.1	4.2	0.2
49	16.3	14.7	-0.1	3.8	16.3	14.5	-0.2	4.1	15.8	14.3	-0.7	3.6	16.4	14.7	-0.2	4.0	0.6
50	16.4	15.4	0.1	4.2	16.4	15.1	0.1	4.0	16.3	15.4	0.5	4.0	16.5	15.3	0.1	4.1	0.2
51	17.0	15.1	0.6	4.0	17.1	14.9	0.7	4.2	16.9	15.1	0.6	4.4	17.0	15.0	0.5	4.3	0.2
52	16.8	14.7	-0.2	3.3	17.0	14.8	-0.1	3.6	16.7	14.8	-0.2	3.2	16.8	14.6	-0.2	3.3	0.3
53	17.1	15.0	0.3	3.4	17.3	15.1	0.3	3.5	17.0	15.1	0.3	3.5	17.2	15.1	0.4	3.8	0.3
54	17.1	14,9	0.0	4.0	17.0	14.6	-0.3	3.7	17.1	15.0	0.1	4.1	17.3	15.0	0.1	4.5	0.3
55	17.8	15.0	0.7	4.5	17.9	15.0	0.9	4.7	17.5	14.9	0.4	4.6	17.8	15.0	0.5	4.6	0.4
<u>56</u> 57	17.8	14.9	0.0	3.5	17.8	14.8	-0.1		17.7	15.0	0.2	3.7	17.7	14.8	-0.1	3.5	0.1
57 58*1	<u>18.4</u>	14.9	0.6	3.9	18.5	14.8	0.7	3.9	<u>17.9</u>	14.6	0.2	4.0	18.3	14.9	0.6	4.4	0.6
59	18.4	15.1	0.0	5.1	18.4	14.9	-0.1	5.1	18.3	15.1	0.4	5.3	18.5	15.0	0.2	5.5	0.2
- <del>59</del> - 60	18.6	15.1	0.0	5.1 4.7	18.5	14.9	0.1	4.3	18.2	15.1	-0.1	5.5 4.6	18.6	15.4	0.2	4.7	0.2
61	18.0	15.6	-0.6	3.1	18.0	15.2	-0.5	3.6	18.0	16.0	-0.2	3.6	18.6	16.2	0.0	4.3	0.6
62	18.5	15.7	0.5	4.0	18.7	15.8	0.7	4.1	17.9	15.6	-0.1	3.7	18.6	15.8	0.0	4.2	0.8
63	18.5	14.7	0.0	3.8	18.9	14.9	0.2	4.4	18.5	15.0	0.6	4.1	18.8	14.8	0.2	4.4	0.4
64	18.5	15.3	0.0	4.2	18.7	15.2	-0.2	4.7	18.4	15.1	-0.1	4.3	18.6	15.0	-0.2	4.8	0.3
65	18.8	15.4	0.3	3.7	19.1	15.4	0.4	4.3	18.7	15.1	0.3	4.0	19.1	15.3	0.5	4.4	0.4
66	18.5	15.5	-0.3	3,4	18.7	15.6	-0.4	3.7	18.7	15.5	0.0	4.1	18.9	15.6	-0.2	4.3	0.4
67	19.7	15.1	1.2	4.1	19.8	15.1	1.1	4.0	19.9	15.2	1.2	4.5	20.2	15.3	1.3	4.8	0.5
68	20.0	15.1	0.3	4.9	20.0	15.1	0.2	4.9	20.1	15.2	0.2	5.4	20.1	15.1	-0.1	5.4	0.1
69	20.0	16.5	0.0	4.5	19.8	16.3	-0.2	4.2	20.2	16.7	0.1	4.9	20.3	16.7	0.2	4.8	0.5
70	20.6	15.4	0.6	4.4	20.6	15.4	0.8	4.3	20.5	15.5	0.3	4.8	20.6	15.4	0.3	4.9	0.1
71	20.6	14.9	0.0	5.4	20.6	14.8	0.0	5.3	20.5	14.9	0.0	5.7	20.6	14.9	0.0	5.8	0.1
72	18.6	14.6	-2.0	5.0	19.0	14.8	-1.6	5.4	18.6	14.7	-1.9	5.3	18.5	14.4	-2.1	5.3	0.5

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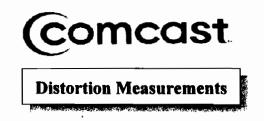
901 N. Kemper St. 24 Hour Level Variation

Equipment Used: 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057( Date: 02/03/07 Run 2 3 4 Time: 06:09:58 Time: 18:09:26 Time: 00:12:12 Time: 12:12:01 35 Temp 40 34 30 Vid Aud Adjent 6 Mth 24 HR Chan 20.1 14.8 1.5 4.6 20.4 14.9 4.8 20.1 14.9 1.5 5.0 20.3 14.9 1.8 5.1 0.3 73 1.4 0.0 74 20.2 15.3 0,1 5.0 20.4 15.3 0.0 5.1 20.1 15.3 0.0 5.3 20.3 15.3 5.4 0.3 75\*1 76 19.5 14.8 -0.7 4.2 19.8 15.0 -0.6 4.3 19.4 14.9 -0.7 4.5 19.7 14.9 -0.6 4.8 0.4 77 19.7 15.1 0.2 4.9 19.8 15.1 0.0 4.8 19.5 15.1 0.1 5.2 19.8 15.2 0.1 5.3 0.3 78\*1 11.7 11.6 -2.2 0.6 11.7 11.5 -2.3 1.2 Min Value 9.2 11.6 -2.4 -0.6 11.8 11.6 -2.8 1.4 0.1 Max Value 20.6 16.8 2.1 5,4 20.6 16.7 2.4 5.4 20.5 16.7 2.1 5.7 20.6 16.7 2.1 5.8 2.9

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Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

## Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

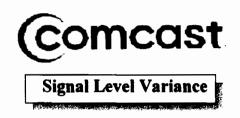
The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

### CCOMCOSt 528 Bellvue PI. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P\*8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

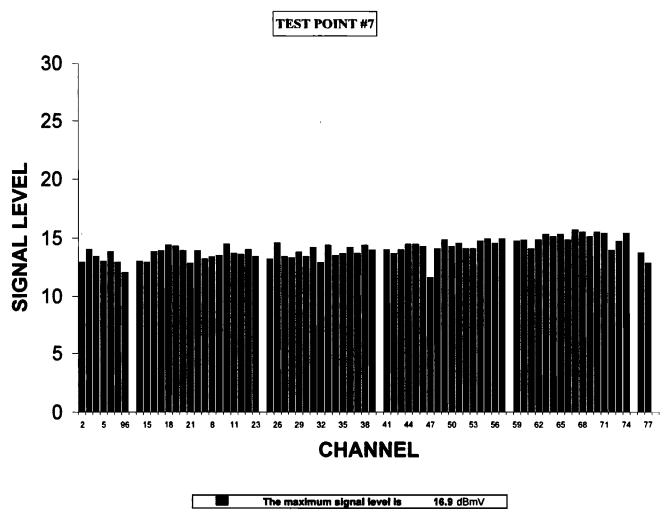
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	Date: 02/2	B/07	Time: 4:10	PM	Temp: 50						
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF				
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max				
	2	0.7	1.4	68.4	65.0	50.1	4.5000				
	95	1.8	1.5	68.8	67.2	49.2	4.5000				
	21	0.9	1.0	74.5	70.8	50.5	4.5001				
	8	1.3	0.9	69.3	68.1	50.4	4.5001				
	28	0.9	1.0	69.5	68.7	49.8	4.5000				
	32	0.7	1.3	67.4	64.5	49.3	4.5001				
	47	0.9	1.2	68.7	65.3	48.0	4.5000				
	56	0.8	1.0	66.0	63.9	47.4	4.5000				
	72	0.7	1.2	69.4	67.0	48.8	4.5000				
Minimum v	mum values: 0.7		0.9	66.0	63.9	47.4	4.5000				
Maximum	ximum values: 1.8			74.5	70.8	50.5	4.5001				



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



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The maximum adjacent channel level difference is	2.8 dBmV
The maximum level difference between the highest and lowest is	4.2 dBmV
The maximum six month variance is	3.6 dBmV

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							1	'est Po	p <b>int</b> #	7							
	(cor	nca	st					528 Bel	Ivue Pl.		•						
	~							lour Lev								_	
	Equipn	nent Us	ed:	100' d		vetek (	SDA-50	00 Sign		d Meter	S/N 43	4057	_	Date:	02/03/0	7	
Run					2				_3			_	4				
	Time: 0	0:41:17			Time: 0	6:40:51			Time: 1	2:57:09			Time: 1	8:54:12	_		
Temp	40				34		A 41		30	A	A 41 - A	0.444	35	A 4	A		
Chan	Vid Lvi	Aud Diff	Adjcnt Diff	6 Mth Diff	Vid Lvi	Aud Diff	Adjcnt Diff	6 Mth Diff	Vid LVI	Aud	Adjcnt Diff	6 Mth Diff	Vid LV	Aud	Adjcnt Diff	Diff	24 HR Vid Diff
2	12.9	12.4		-1.1	13.0	12.5	Dia	-1.3	12.8	12.3	Dai	-0.8	12.8	12.3		-0.8	0.2
3	14.0	15.4	1.1	-0.7	13.9	15.1	0.9	-0.7	14.1	15.3	1.3	-0.2	13.7	15.1	0.9	-0.6	0.4
4	13.4	14.6	-0.6	-0.6	14.3	15.4	0.4	-0.6	13.7	15.0	-0.4	-0.5	14.3	15.7	0.6	-1.0	0.9
5	13.0	12.8	-0.4	-1.5	13.6	14.9	-0.7	-1.8	13.2	14.4	-0.5	-1.7	13.1	14.5	-1.2	-1.8	0.6
6	13.8	15.1	0.8	-0.7	13.8	15.4	0.2	-0.8	13.9	15.4	0.7	-0.3	13.8	15.3	0.7	-0.1	0.1
95	12.9	15.9	-0.9	-2.7	13.0	14.2	-0.8	-2.7	13.0	14.1	-0.9	-2.2	12.9	14.1	-0.9	-2.4	0.1
96	12.0	15.0	-0.9	-3.6	13.6	15.0	0.6	-1.9	13.7	15.0	0.7	-1.7	13.5	14.9	0.6	-1.9	1.7
99*1				-													
14	13.0	15.0	1.0	-1.0	13.2	15.2	-0.4	-1.3	13.3	15.2	-0.4	-1.0	13.1	15.2	-0.4	-1.9	0.3
15	12.9	14.1	-0.1	-1.5	13.0	14.2	-0.2	-1.3	13.1	14.2	-0.2	-1.2	13.2	14.4	0.1	-1.1	0.3
16	13.8	16.9	0.9	-0.5	13.7	16.8	0.7	-0.3	13.9	16.2	0.8	-0.2	13.9	16.1	0.7	-0.3	0.2
17	13.9	14.9	0.1	-0.3	13.9	15.0	0.2	-0.5	13.9	14.9	0.0	-0.2	13.9	15.0	0.0	-0.2	0.0
18	14.4	15.5	0.5	0.2	14.3	15.4	0.4	0.2	14.3	15.3	0.4	0.4	14.3	15.4	0.4	0.2	0.1
19	14.3	15.0	-0.1	0.1	14.3	15.0	0.0	-0.1	14.4	15.0	0.1	0.4	13.9	14.6	-0.4	-0.2	0.5
20	13.9	14.9	-0.4	-0.4	13.8	14.8	-0.5	-0.6	14.2	15.2	-0.2	0.3	14.0	15.1	0.1	-0.1	0.4
21	12.8	13.5	-1.1	-1.2	12.8	13.4	-1.0	-1.6	12.9	13.5	-1.3	-1.0	12.9	13.6	-1.1	-0.9	0.1
22	13.9	15.0	1.1	-0.4	13.9	14.9	1.1	-0.6	14.2	15.2	1.3	-0.2	14.1	15.2	1.2	-0.4	0.3
7	13.2	13.8	-0.7	-2.5	13.6	14.1	-0.3	-1.4	13.8	14.4	-0.4	-0.1	14.2	14.8	0.1	-0.7	1.0
8	13.4	14.3	0.2	-2.0	13.5	14.3	-0.1	-1.9	13.4	14.2	-0.4	-1.4	13.2	14.1	-1.0	-1.5	0.3
9	13.5	14.3	0.1	-2.1	14.4	15.1	0.9	0.3	13.6	14.3	0.2	-0.7	15.4	16.2	2.2	-0.1	1.9
10	14.5	15.6	1.0	-1.5	14.4	15.3	0.0	-1.8	14.6	15.6	1.0	-1.0	14.4	15.4	-1.0	-1.2	0.2
11	13.7	14.8	-0.8	-2.1	14.0	15.0	-0.4	-1.8	13.9	14.8	-0.7	-1.6	13.7	14.7	-0.7	-1.7	0.3
12	13.6	14.8	-0.1	-2.4	13.9	14.9	-0.1	-2.0	13.4	14.3	-0.5	-2.1	13.8	14.9	0.1	-1.5	0.5
13	14.0	14.9	0.4	-1.6	14.2	15.1	0.3	-1.7	14.1	15.2	0.7	-0.9	13.9	14.9	0.1	-1.2	0.3
23	13.4	14.7	-0.6	-2.1	<u>13.</u> 5	14.8	-0.7	-1.8	13.3	14.6	-0.8	-1.9	13.2	<u>14.5</u>	-0.7	-1.6	0.3
24*1									10.0				40.4	44.0			
25	13.2	15.1	-0.2	-1.9	13.3	15.1	-0.2	-2.0	13.2	15.0	-0.1	-1.6	13.1	14.9	-0.1	-1.4	0.2
26	14.6	15.5	1.4	-1.1	14.3	15.1	1.0	-1.4	14.6	15.4	1.4	-0.6	14.2	15.0	1.1	-1.1	0.4
27	13.4	13.9	-1.2	-1.6	13.4	13.8	-0.9	-1.7	13.6	14.0	-1.0	-0.9	13.6	14.1	-0.6	-1.0	0.2
28	13.3	14.8	-0.1	-2.5	13.5	14.8	0.1	-2.3	13.4	14.7	-0.2	-1.6	13.3	14.7			
29	13.8	15.3	0.5	-1.8	13.9	15.3	0.4	-1.6	13.9	15.3	0.5	- <u>1.3</u> -1.0	13.9	15.4 14.8	0.6	-1.4	0.1
30	13.4	14.7	-0.4	-2.2	13.4	14.7	-0.5	-2.3	13.6	14.9	-0.3	-1.3	<u>13.5</u> 14.1	14.8		-1.5	0.2
31	14.2	14.8	0.8	-1.7	14.3	14.9	0.9	-1.7 -2.8	14.2	14.8	0.6	-1.3 -2.1	14.1	14.8	0.6	-1.5	0.2
32	12.9	14.0	-1.3	-2.5	12.9	13.9	-1.4	-2.0	13.0	14.0	•1.4	-2.1	13.0	14.0	1	-1.0	0.1

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S28 Belvue P. 24 Hour Level Variation           Equipment Used:         100 drop, Wavetek SDA.5000 Signal Level Weller SN 434057.         Date: 62/03/07           Run         2         3         4           Time: 08/06/51         Time: 100 drop, Wavetek SDA.5000 Signal Level Weller SN 434057.         Date: 62/03/07           Time: 08/06/51         Time: 108/61/2           Time: 08/06/51         Time: 108/61/2         Time: 108/61/2           Time: 108/07/16/16/16/16/16/16/16/16/16/16/16/16/16/								Test Point #7										
<t< td=""><td></td><td>(cor</td><td>nca</td><td>st</td><td></td><td></td><td></td><td></td><td>528 Be</td><td>livue Pl</td><td></td><td>Pit.</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		(cor	nca	st					528 Be	livue Pl		Pit.						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		G						24 H	lour Le	vel Vari	ation							
Time:         00:41:17         Time:         08:42:13         Time:         12:57:09         Time:         18:54:12           30         34         30         35         35           31         14.4         15.8         1.5         -1.0         14.3         15.6         1.4         -1.3         14.4         15.8         1.4         1.5         1.4         0.7         14.4         15.7         1.4         0.7         1.4         1.5         0.7         1.4         1.5         0.6         -1.3         0.6         -1.3         0.6         -1.3         0.6         -1.5         0.5         0.7         1.4         1.5         0.7         0.7         1.4         1.5         0.7         0.5         0.1         1.3         1.4         1.5         0.2         1.1         1.4         1.5         0.3         1.4.2         1.5         0.6         0.3         1.4.2         1.5         0.6         0.6         0.3         1.4.5         1.5         0.6         0.6         0.3         1.4.5         1.5         0.6         0.6         0.2         1.3         1.4.4         1.5         0.6         0.2         1.5         0.2         1.5         0.2         1.5 <td></td> <td>Equipr</td> <td>nent Us</td> <td>ed:</td> <td>100' d</td> <td></td> <td>vetek :</td> <td>SDA-50</td> <td>00 Sigr</td> <td>nal Leve</td> <td>el Meter</td> <td>r S/N 43</td> <td>34057(</td> <td></td> <td>Date: (</td> <td>02/03/01</td> <td>7</td> <td></td>		Equipr	nent Us	ed:	100' d		vetek :	SDA-50	00 Sigr	nal Leve	el Meter	r S/N 43	34057(		Date: (	02/03/01	7	
Temp         40         34         30         35           Chan         Vid         Audi         Adjeril 6 Mth         Vid         Audi         Adjeril 6 Mth         24	Run	1	_			2				3				4				
Vid         Aud         Adjent         6 Mth         Vid         Aud         Adjent         6 Mth         Vid         Aud         Adjent         6 Mth         24 HR           33         14.4         15.8         1.5         -1.0         14.3         15.6         1.4         -1.3         14.4         15.8         1.4         -0.7         0.1           34         13.5         14.9         0.9         -1.8         14.0         15.7         0.5         -1.0         14.1         15.6         0.5         -0.0         14.3         15.5         0.5         0.1         13.5         1.6         0.3         -1.5         0.4         0.2         -1.2         15.4         0.5         -0.4         14.2         15.4         0.3         -1.3         0.4           38         14.4         15.5         0.5         -1.0         14.0         15.2         0.2         -1.2         14.2         15.6         0.6         0.3         14.5         16.6         0.6         0.3         14.8         0.6         1.0         0.3         1.0         0.3           40'1         15.7         0.4         15.8         0.4         0.9         13.8         14.8 <td< td=""><td></td><td></td><td>0:<u>41:</u>17</td><td></td><td></td><td></td><td>6:40:51</td><td></td><td></td><td></td><td>2:57:09</td><td></td><td></td><td></td><td>8:54:12</td><td></td><td></td><td></td></td<>			0: <u>41:</u> 17				6:40:51				2:57:09				8:54:12			
							_							35				
34         13.5         14.9         0.9         1.9         14.0         15.4         -0.3         -1.8         13.7         15.1         -0.7         -1.4         13.8         16.3         -0.6         -1.3         0.5           35         13.7         14.7         0.2         -1.6         13.8         14.7         -0.2         -1.7         13.7         14.6         0.0         -1.2         13.8         16.4         -0.3         13.5         16.4         -0.5         0.1           36         14.2         15.5         0.5         0.9         14.3         15.5         -1.0         14.6         15.6         0.6         -1.2         13.8         14.4         15.6         0.6         -0.2         14.5         15.6         0.6         0.6         0.2           39         14.0         15.4         0.4         -1.2         14.2         15.6         0.6         -0.6         0.2         13.8         14.5         15.6         0.6         -0.6         0.2         1.0         14.1         15.7         0.2         -1.6         14.1         15.7         0.1         14.1         15.7         0.1         14.1         15.7         0.1         14.1												Adjoint				Adjent	6 Mth	24 HR
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40°1         100 <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td>_</td>						_									_			_
41         14.0         15.4         0.0         -1.7         14.1         15.5         -0.1         -1.6         14.2         15.6         0.0         -1.5         14.1         15.6         0.2         -1.5         0.2           42         13.7         15.4         -0.3         -1.6         13.9         15.5         -0.2         -1.8         14.1         15.7         0.0         -1.2         14.1         15.7         0.5         -1.2         0.1           44         14.5         15.1         0.4         -0.7         14.4         15.0         0.3         -0.9         0.2           45         14.5         15.1         0.4         -0.7         14.4         15.0         0.0         -1.3         0.1           46         14.5         15.5         -0.2         14.3         15.5         -0.1         -1.6         14.4         16.0         0.1         -1.6         14.4         16.0         0.1         -1.6         14.4         15.7         0.7         -1.3         14.4         15.7         0.1         14.8         15.6         0.1         14.8         15.4         0.6         -1.9         14.0         15.5         0.4         0.1.4		14.0	14.9	-0.4	-1.2	14.2	<u>15.1</u>	-0.4	-1.2	14.2	15.0	-0.4	-0.9	13.9	14.8	-0.6	-1.0	0.3
42       13.7       15.4 $-0.3$ $-1.6$ 13.9       15.5 $-0.2$ $-1.8$ 14.1       15.7 $-0.1$ $-0.9$ 13.6       15.2 $-0.5$ $-1.0$ $0.5$ 43       14.0       15.6       0.3 $-1.9$ 14.1       15.7 $0.2$ $-1.6$ 14.1       15.7 $0.0$ $-1.2$ 14.1       15.7 $0.5$ $-1.2$ $0.1$ 44       14.5       15.1 $0.5$ $-1.2$ 14.3       14.9 $0.2$ $-1.6$ 14.1       15.7 $0.0$ $-1.2$ 14.1       15.0 $0.3$ $-0.9$ $0.2$ 45       14.5       15.1 $0.5$ $-1.2$ 14.3       15.5 $-0.1$ $1.6$ $14.4$ $16.0$ $0.0$ $-1.3$ $0.1$ $0.1$ $0.0$ $1.1$ $0.0$ $1.1$ $0.1$ $0.1$ $0.1$ $1.1$ $0.0$ $1.1$ $0.0$ $1.1$ $0.0$ $1.1$ $0.0$ $1.1$ $0.0$ $1.1$ $0.0$ $1.1$ $0.0$ $0.1$ $0.1$ $0.1$ $0.1$ $0.0$			45.1				15.5					_						
43       14.0       15.6       0.3       -1.9       14.1       15.7       0.2       -1.8       14.1       15.7       0.0       -1.2       14.1       15.7       0.5       -1.2       0.1         44       14.5       15.1       0.5       -1.2       14.3       14.9       0.2       -1.6       14.5       15.1       0.4       -0.7       14.4       15.0       0.3       -0.9       0.2         45       14.5       16.1       0.0       -1.4       14.4       16.0       0.1       -1.6       14.4       16.0       0.1       -1.6       14.4       16.0       0.1       -1.6       14.4       16.0       0.0       -1.3       0.1         45       16.1       1.4       15.2       0.4       -2.3       14.3       15.5       0.1       -1.6       14.4       15.4       0.2       -1.5       0.3         47       11.6       14.8       -2.7       -2.7       11.6       14.7       -2.7       -2.3       11.6       14.4       15.4       0.0       -1.4       14.9       15.3       0.5       -1.4       14.9       15.3       0.5       -1.4       14.9       15.3       0.5       -1.4													_				_	
44         14.5         15.1         0.5         -1.2         14.3         14.9         0.2         -1.6         14.5         15.1         0.4         -0.7         14.4         15.0         0.3         -0.9         0.2           45         14.5         16.1         0.0         -1.4         14.4         16.0         0.1         -1.6         14.4         16.0         0.0         -1.3         0.1           46         14.3         15.5         -0.2         -1.8         14.0         15.2         -0.4         -2.3         11.6         14.7         -1.6         14.4         15.4         -0.2         -1.5         0.3           47         11.6         14.8         -2.7         -2.7         11.6         14.7         -2.7         -2.3         11.6         14.8         -0.2         -0.5         0.1         10.4         15.4         0.4         15.5         0.4         15.5         0.4         15.5         0.4         15.5         0.4         15.4         0.5         0.4         11.4         15.5         0.4         14.8         15.5         0.4         1.5         14.4         15.4         0.5         14.7         14.2         15.1         0.5																		
45       14.5       16.1       0.0       -1.4       14.4       16.0       0.1       -1.6       14.4       16.0       0.1       -1.2       14.4       16.0       0.0       -1.3       0.1         46       14.3       15.5       -0.2       -1.8       14.0       15.2       -0.4       -2.3       14.3       15.5       -0.1       -1.6       14.2       15.4       -0.2       -1.5       0.3         47       11.6       14.8       -2.7       -2.7       11.6       14.7       -2.7       -2.3       11.6       14.4       15.4       -0.2       -1.5       0.3         48       14.1       15.1       2.5       -2.0       14.3       15.3       2.7       -1.9       14.4       15.3       2.8       -1.6       14.4       15.4       0.5       -0.7       0.1         50       14.3       15.4       -0.6       -1.9       14.4       15.3       0.5       -1.4       14.9       15.5       -0.4       -0.9       14.3       15.4       -0.6       -1.4       0.2         51       14.3       15.4       -0.6       -1.1       15.2       0.4       -1.1       0.2       14.4       14.9 <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td>													_					
46         14.3         15.5         -0.2         -1.8         14.0         15.2         -0.4         -2.3         14.3         15.5         -0.1         -1.6         14.2         15.4         -0.2         -1.5         0.3           47         11.6         14.8         -2.7         -2.7         11.6         14.7         -2.7         -2.3         11.6         14.8         -2.6         -2.3         0.0           48         14.1         15.3         2.6         -1.6         14.4         15.4         2.8         -1.4         0.3           49         14.3         15.3         0.8         -1.9         14.4         15.5         0.4         -0.9         14.3         15.4         0.6         -1.4         0.3           51         14.6         15.4         0.6         -1.1         14.8         15.5         0.4         -1.7         14.5         15.4         0.6         -1.4         0.8         -1.7         14.2         15.4         0.6         -1.4         14.0         0.8         -1.7         14.2         15.0         0.5         5.5         1.7         0.4         15.5         0.4         -1.6         14.6         15.2         0.4 <t< td=""><td></td><td>_</td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></t<>		_			_					-			-					
47       11.6       14.8       -2.7       -2.7       11.6       14.7       -2.7       -2.3       11.6       14.8       -2.6       -2.3       0.0         48       14.1       15.1       2.5       -2.0       14.3       15.3       2.7       -1.9       14.4       15.3       2.8       -1.6       14.4       15.4       2.8       -1.4       0.9       14.3       15.4       0.6       -0.5       14.9       15.4       0.6       -0.7       0.1         50       14.3       15.4       -0.6       -1.9       14.4       15.4       -0.4       -1.7       14.5       15.5       -0.4       -0.9       14.3       15.4       -0.6       -1.4       10.2         51       14.6       15.4       0.3       -1.1       14.8       15.5       0.4       -1.1       0.2         52       14.1       14.9       -0.5       -2.1       14.4       15.2       -0.4       -1.9       14.0       14.9       0.4       -1.6       14.6       15.2       0.4       -1.5       0.5         54       14.1       15.5       0.2       -1.1       14.5       15.0       0.1       -1.0       14.9       15.7 <td></td>																		
48 $14.1$ $15.1$ $2.5$ $-2.0$ $14.3$ $15.3$ $2.7$ $-1.9$ $14.4$ $15.3$ $2.8$ $-1.6$ $14.4$ $15.4$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.5$ $0.6$ $0.6$ $0.1$ $0.6$ $0.1$ $0.6$ $0.1$ $0.1$ $0.6$ $0.1$ $0.1$ $0.6$ $0.1$									_						_			
49         14.9         15.3         0.8         -1.3         14.8         15.3         0.5         -1.4         14.9         15.3         0.5         -0.5         14.9         15.4         0.5         -0.7         0.1           50         14.3         15.4         -0.6         -1.9         14.4         15.4         -0.4         -1.7         14.5         15.5         -0.4         -0.9         14.3         15.4         -0.6         -1.4         0.2           51         14.6         15.4         0.3         -1.1         14.8         15.5         0.4         -1.4         14.8         15.6         0.3         -0.8         14.7         15.5         0.4         -1.1         0.2           52         14.1         14.6         0.0         -2.1         14.4         15.0         0.1         -2.1         14.4         14.9         0.4         -1.6         14.6         15.4         -0.5         -1.7         0.4           53         14.1         14.6         0.0         -1.1         14.9         15.5         0.4         -1.6         14.6         15.4         -0.3         -1.5         0.5           54         14.8         15.3 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																		
50         14.3         15.4 $-0.6$ $-1.9$ 14.4         15.4 $-0.4$ $-1.7$ 14.5         15.5 $-0.4$ $-0.9$ 14.3         15.4 $-0.6$ $-1.4$ $0.2$ 51         14.6         15.4         0.3 $-1.1$ 14.8         15.5         0.4 $-1.4$ 14.8         15.6         0.3 $-0.8$ 14.7         15.5         0.4 $-1.1$ 0.2           52         14.1         14.9 $-0.5$ $-2.1$ 14.4         15.2 $-0.4$ $-1.9$ 14.0         14.9 $-0.8$ $-1.7$ 14.2         15.1 $-0.5$ $-1.7$ $0.4$ 53         14.1         14.6         15.0         0.1 $-2.1$ 14.4         14.9         0.4 $-1.6$ 14.6         15.4 $0.0$ $-1.8$ 0.2 $-1.4$ 14.9         15.5         0.4 $-1.6$ 14.6         15.4         0.3 $-1.5$ 0.2           54         14.8         15.2         0.2 $-1.1$ 14.9         15.0         0.2 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																		
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54         14.8         15.5         0.7         -1.8         14.7         15.5         0.2         -1.9         14.8         15.5         0.4         -1.6         14.6         15.4         0.0         -1.8         0.2           55         15.0         15.7         0.2         -1.1         14.9         15.6         0.2         -1.4         14.9         15.7         0.1         -1.0         14.9         15.7         0.3         -1.0         0.1           56         14.8         15.3         -0.4         -1.9         14.4         15.1         -0.5         -2.1         14.6         15.3         -0.3         -1.6         14.6         15.4         -0.3         -1.5         0.2           57         15.0         0.4         -1.5         15.0         15.0         0.6         -1.8         15.0         0.4         -1.4         15.1         15.1         0.5         -1.1         0.1           58*1		_	_		_			_			-			-				
55         15.0         15.7         0.2         -1.1         14.9         15.6         0.2         -1.4         14.9         15.7         0.1         -1.0         14.9         15.7         0.3         -1.0         0.1           56         14.6         15.3         -0.4         -1.9         14.4         15.1         -0.5         -2.1         14.6         15.3         -0.3         -1.6         14.6         15.4         -0.3         -1.5         0.2           57         15.0         15.0         0.4         -1.5         15.0         0.6         -1.8         15.0         0.4         -1.4         15.1         15.1         0.5         -1.1         0.1           58*1																		
56         14.6         15.3         -0.4         -1.9         14.4         15.1         -0.5         -2.1         14.6         15.3         -0.3         -1.6         14.6         15.4         -0.3         -1.5         0.2           57         15.0         15.0         0.4         -1.5         15.0         15.0         0.6         -1.8         15.0         0.4         -1.4         15.1         15.1         0.5         -1.1         0.1           58*1																		
57         15.0         15.0         0.4         -1.5         15.0         15.0         0.6         -1.8         15.0         15.0         0.4         -1.4         15.1         15.1         0.5         -1.1         0.1           58*1		_		+ + -														
58*1         -		_	_						<u> </u>									
59         14.8         15.2         -0.2         -1.1         15.2         15.6         0.2         -0.7         14.9         15.4         -0.1         -0.7         15.1         15.5         0.0         -0.4         0.4           60         14.9         16.1         0.1         -0.9         14.8         16.1         -0.4         -1.2         14.7         16.0         -0.2         -0.9         14.8         16.0         -0.3         -0.8         0.2           61         14.1         15.5         -0.8         -1.5         14.2         15.7         -0.6         -1.6         14.4         15.8         -0.3         -1.0         14.4         15.8         -0.4         -0.9         0.3           62         14.9         15.9         0.8         -1.5         14.8         16.0         0.6         -1.7         14.9         16.0         0.5         -1.2         14.8         15.8         0.4         -1.4         0.1           63         15.4         15.6         0.5         -1.2         15.2         15.0         0.4         -1.4         15.0         0.5         -0.8         15.2         15.4         0.4         -1.3         0.2		13.0	13.0	0.4	-1.5	13.0	13.0	0.0	-1.0	13.0	10.0	0.4	-1.4	13.1	13.1	0.5	-1.1	0.1
60         14.9         16.1         0.1         -0.9         14.8         16.1         -0.4         -1.2         14.7         16.0         -0.2         -0.9         14.8         16.0         -0.3         -0.8         0.2           61         14.1         15.5         -0.8         -1.5         14.2         15.7         -0.6         -1.6         14.4         15.8         -0.3         -1.0         14.4         15.8         -0.4         -0.9         0.3           62         14.9         15.9         0.8         -1.5         14.2         15.7         -0.6         -1.6         14.4         15.8         -0.3         -1.0         14.4         15.8         -0.4         -0.9         0.3           62         14.9         15.9         0.8         -1.2         15.5         0.4         -1.4         15.4         15.6         0.5         -1.2         14.8         15.8         0.4         -1.4         0.1           63         15.4         16.2         0.2         -1.1         15.0         16.0         -0.2         -1.4         15.0         15.9         -0.2         -0.9         0.2           64         15.2         16.1         0.2		14.8	15.2	-02	-11	16.2	15.6	02	.07	14.0	15.4	-01	<u>.</u>	15.1	15.5	00	-04	04
61       14.1       15.5       -0.8       -1.5       14.2       15.7       -0.6       -1.6       14.4       15.8       -0.3       -1.0       14.4       15.8       -0.4       -0.9       0.3         62       14.9       15.9       0.8       -1.5       14.8       16.0       0.6       -1.7       14.9       16.0       0.5       -1.2       14.8       15.8       0.4       -1.4       0.1         63       15.4       15.6       0.5       -1.2       15.2       15.5       0.4       -1.4       15.4       15.6       0.5       -0.8       15.2       15.4       0.4       -1.3       0.2         64       15.2       16.1       -0.2       -1.1       15.0       16.0       -0.2       -1.4       15.0       15.9       -0.4       -0.9       15.0       15.9       -0.2       -0.9       0.2         65       15.4       16.2       0.2       -1.7       15.2       16.1       0.2       -1.2       15.2       16.0       0.2       -1.2       0.2         66       14.9       15.9       -0.5       -1.5       14.6       15.8       -0.6       -1.9       14.7       15.7       -0.5 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									_									
62         14.9         15.9         0.8         -1.5         14.8         16.0         0.6         -1.7         14.9         16.0         0.5         -1.2         14.8         15.8         0.4         -1.4         0.1           63         15.4         15.6         0.5         -1.2         15.2         15.5         0.4         -1.4         15.4         15.6         0.5         -0.8         15.2         15.4         0.4         -1.3         0.2           64         15.2         16.1         -0.2         -1.1         15.0         16.0         -0.2         -1.4         15.0         15.9         -0.4         -0.9         15.0         15.9         -0.2         -0.9         0.2           65         15.4         16.2         0.2         -1.7         15.2         16.1         0.2         -1.2         15.2         16.0         0.2         -1.2         0.2           66         14.9         15.9         -0.5         -1.5         14.6         15.8         -0.6         -1.9         14.7         15.7         -0.5         -1.4         14.7         15.6         -0.5         -1.1         0.3           67         15.8         15.5 <t< td=""><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td>_</td><td></td><td></td><td></td></t<>			_											_	_			
63         15.4         15.6         0.5         -1.2         15.2         15.5         0.4         -1.4         15.4         15.6         0.5         -0.8         15.2         15.4         0.4         -1.3         0.2           64         15.2         16.1         -0.2         -1.1         15.0         16.0         -0.2         -1.4         15.0         15.9         -0.4         -0.9         15.0         15.9         -0.2         -0.9         0.2           65         15.4         16.2         0.2         -1.7         15.2         16.1         0.2         -1.2         15.2         16.0         0.2         -1.2         0.2           66         14.9         15.9         -0.5         -1.5         14.6         15.8         -0.6         -1.9         14.7         15.7         -0.5         -1.4         14.7         15.6         -0.5         -1.1         0.3           67         15.8         15.5         0.9         -1.1         15.8         15.6         1.2         -1.2         15.8         15.4         1.1         -0.7         15.8         15.3         1.1         -0.7         0.0           68         15.6         15.3 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																		
64         15.2         16.1         -0.2         -1.1         15.0         16.0         -0.2         -1.4         15.0         15.9         -0.4         -0.9         15.0         15.9         -0.2         -0.2         -0.9         0.2           65         15.4         16.2         0.2         -1.7         15.2         16.1         0.2         -1.7         15.2         16.1         0.2         -1.2         15.2         16.0         0.2         -1.2         0.2           66         14.9         15.9         -0.5         -1.5         14.6         15.8         -0.6         -1.9         14.7         15.7         -0.5         -1.4         14.7         15.6         -0.5         -1.1         0.3           67         15.8         15.5         0.9         -1.1         15.8         15.6         1.2         -1.2         15.8         15.4         1.1         -0.7         15.8         15.3         1.1         -0.7         0.0           68         15.6         15.3         -0.2         -0.9         15.3         15.2         -0.5         -1.2         15.5         15.1         -0.3         -0.5         15.7         15.3         -0.1         -0.2																		
65         15.4         16.2         0.2         -1.7         15.2         16.1         0.2         -1.2         15.2         16.0         0.2         -1.2         0.2           66         14.9         15.9         -0.5         -1.5         14.6         15.8         -0.6         -1.9         14.7         15.7         -0.5         -1.4         14.7         15.6         -0.5         -1.1         0.3           67         15.8         15.5         0.9         -1.1         15.8         15.6         1.2         -1.2         15.8         15.4         1.1         -0.7         15.8         15.3         1.1         -0.7         0.0           68         15.6         15.3         -0.2         -0.9         15.3         15.2         -0.5         -1.2         15.8         15.4         1.1         -0.7         15.8         15.3         1.1         -0.7         0.0           68         15.6         15.3         -0.2         -0.9         15.3         15.2         -0.5         -1.2         15.5         15.1         -0.3         -0.5         15.7         15.3         -0.1         -0.2         0.4           69         15.2         16.6			_															
66         14.9         15.9         -0.5         -1.5         14.6         15.8         -0.6         -1.9         14.7         15.7         -0.5         -1.4         14.7         15.6         -0.5         -1.1         0.3           67         15.8         15.5         0.9         -1.1         15.8         15.6         1.2         -1.2         15.8         15.4         1.1         -0.7         15.8         15.3         1.1         -0.7         0.0           68         15.6         15.3         -0.5         -1.2         15.8         15.4         1.1         -0.7         15.8         15.3         1.1         -0.7         0.0           68         15.6         15.3         15.2         -0.5         -1.2         15.5         15.1         -0.3         -0.5         15.7         15.3         -0.1         -0.2         0.4           69         15.2         16.6         -0.4         -1.2         15.4         15.1         16.5         -0.4         -1.0         15.4         0.2         -0.4           70         15.6         15.5         0.4         -1.0         15.2         15.4         0.2         -1.4         15.4         15.3																		
67         15.8         15.5         0.9         -1.1         15.8         15.6         1.2         -1.2         15.8         15.4         1.1         -0.7         15.8         15.3         1.1         -0.7         0.0           68         15.6         15.3         -0.2         -0.9         15.3         15.2         -0.5         -1.2         15.5         15.1         -0.3         -0.5         15.7         15.3         -0.1         -0.2         0.4           69         15.2         16.6         -0.4         -1.2         15.0         16.1         15.1         16.5         -0.4         -1.0         15.4         16.8         -0.3         -0.7         0.4           69         15.2         16.6         -0.4         -1.2         15.0         15.1         16.5         -0.4         -1.0         15.4         16.8         -0.3         -0.7         0.4           70         15.6         15.5         0.4         -1.0         15.2         15.4         0.2         -1.4         15.4         15.3         0.3         -0.7         15.6         15.4         0.2         -0.5         0.4           71         15.5         14.9         -0.1																		
68         15.6         15.3         -0.2         -0.9         15.3         15.2         -0.5         -1.2         15.5         15.1         -0.3         -0.5         15.7         15.3         -0.1         -0.2         0.4           69         15.2         16.6         -0.4         -1.2         15.0         16.1         15.1         16.5         -0.4         -1.0         15.4         16.8         -0.3         -0.7         0.4           70         15.6         15.5         0.4         -1.0         15.2         15.4         0.2         -1.4         15.4         15.3         0.3         -0.7         15.6         15.4         0.2         -0.5         0.4           70         15.6         15.5         0.4         -1.0         15.2         15.4         0.2         -1.4         15.4         15.3         0.3         -0.7         15.6         15.4         0.2         -0.5         0.4           71         15.5         14.9         -0.1         0.3         15.2         15.0         0.0         -0.1         15.7         15.1         0.3         0.3         15.5         14.8         -0.1         0.4         0.5 <td></td>																		
69         15.2         16.6         -0.4         -1.2         15.0         16.8         -0.3         -1.6         15.1         16.5         -0.4         -1.0         15.4         16.8         -0.3         -0.7         0.4           70         15.6         15.5         0.4         -1.0         15.2         15.4         0.2         -1.4         15.4         15.3         0.3         -0.7         15.6         15.4         0.2         -0.5         0.4           71         15.5         14.9         -0.1         0.3         15.2         15.0         0.0         -0.1         15.7         15.1         0.3         0.3         15.5         14.8         -0.1         0.4         0.5													_				-	
70         15.6         15.5         0.4         -1.0         15.2         15.4         0.2         -1.4         15.4         15.3         0.3         -0.7         15.6         15.4         0.2         -0.5         0.4           71         15.5         14.9         -0.1         0.3         15.2         15.0         0.0         -0.1         15.7         15.1         0.3         0.3         15.5         14.8         -0.1         0.4         0.5																		
71 15.5 14.9 -0.1 0.3 15.2 15.0 0.0 -0.1 15.7 15.1 0.3 0.3 15.5 14.8 -0.1 0.4 0.5																		
											_							
- τε _ μη, υ μιο, ο μ τ. ο μ. υ. υ μ. τη, τ. μ. τ. μ. μ. τ. μ. ο μ. το, ο μ. τ. ο μ. υ. υ. μ. μ. ο μ. τ. ο μ. υ. ο μ. τ. ο μ. υ. ο μ. τ. ο μ. υ. ο μ. τ. ο μ. ο μ. ο μ. ο μ. ο μ. ο μ.	72	14.0	15.5	-1.5	0.0	14.1	15.2	-1.1	0.0	13.9	15.2	-1.8	0.0	13.7	15.5	-1.8	0.0	0.4

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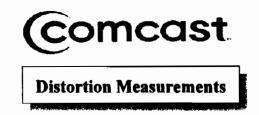
528 Bellvue Pl. 24 Hour Level Variation

	Equipn	nent Us	sed:	100' d	Irop, Wavetek SDA-5000 Signal Level Meter S/N 434057(								Date: (	02/03/0	7		
Run	1			_	2				3				4				
	Time: 0	0:41:17			Time: 0	6:40:51			Time: 1	2:57:09			Time: 1	8:54:12			
Temp.	40			_	34				30				35				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
73	14.8	14.7	0.8	0.3	14.9	14.9	0.8	0.8	15.0	14.8	1.1	0.1	14.9	14.7	1.2	-0.2	0.2
74	15.5	15.9	0.7	0.7	15.4	15.8	0.5	1.8	15.6	15.8	0.6	0.2	15.6	15.8	0.7	0.3	0.2
75*1																	
76	13.8	15.6	-1.7	1.5	13.9	14.9	-1.5	-1.0	13.9	15.5	-1.7	1.0	13.9	15.8	-1.7	0.6	0.1
77	12.9	15.9	-0.9	-2.0	13.8	15.1	-0.1	-2.4	13.0	15.8	-0.9	1.7	13.0	15.9	-0.9	1.0	0.9
78*1																	
Min Value	11.6	12.4	-2.7	-3.6	11.6	12.5	-2.4	-2.9	11.6	12.3	-2.7	-2.3	11.6	12.3	-2.6	-2.4	0.0
Max Value	15.8	16.9	2.5	1.5	15.8	16.8	2.7	1.8	15.8	16.5	2.8	1.7	15.8	16.8	2.8	1.0	1.9

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Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

#### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/- 2dB.

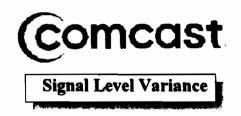
(comcast	
5109 Gardner Dr.	
Alexandria, VA	
FCC Distortion Measurements	
EQUIPMENT USED.	
H/P 8591C, S/N 3916A04384	ſ
Pre-Amplifier 85905A, S/N 6093-0551	
Comsonics Cybertec Examiner	
CONVERTER BOX SA 8511, S/N GF505BFDN	

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	Date: 02/2	B/07	Time: 5:45	PM		Temp: 45	
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max
	2	1.9	0.9	69.6	68.0	49.9	4.5000
	95	2.0	0.9	74.1	63.6	50.6	4.5000
	21	1.2	1.0	77.7	69.2	51.8	4.5001
	8	1.2	0.9	72.8	67.8	52.4	4.5001
	28	1.2	0.9	74.6	66.0	51.3	4.5000
	32	1.1	1.0	73.9	68.2	51.1	4.5001
	47	1.1	0.9	69.4	69.0	50.3	4.5000
	56	1.0	1.0	74.0	65.3	48.3	4.5000
	72	0.6	1.2	66.9	70.1	49.3	4.5000
Minimum v	mum values: 0.6		0.9	66.9	63.6	48.3	4.5000
Maximum	values:	2.0	1.2	77.7	70.1	52.4	4.5001

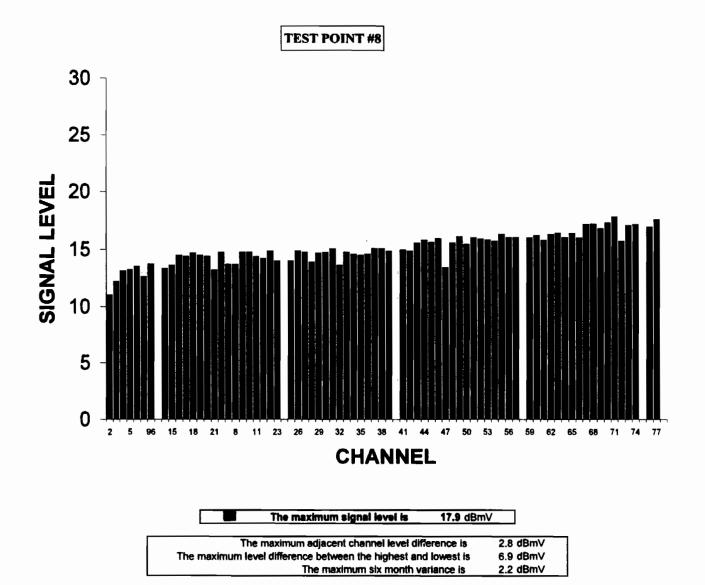
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The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



						-	1	est P	oint #	8							
	(coi	nca	st				-	109 Ga Iour Le									
	Equipn	nent Us	sed:	100' d	rop, Wa	vetek (					S/N 43	4057(		Date: (	02/03/0	7	
Run	1				2				3				4				
	Time: 0	0:58:31			Time: 0	7:00:02			Time: 1	3:25:20			Time: 1	9:20:49			
Temp	40				34				30				35				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjont	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
	Lvi	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Lvl	Diff	Diff	Diff	LVI	Diff	Diff	Diff	Vid Diff
2	11.0	11.7		-0.4	11.1	11.8		-0.8	11.1	11.8		-0.3	11.0	11.7		-0.5	0.1
3	12.2	14.8	1.2	0.6	12.4	14.9	1.3	0.5	12.2	14.8	1.1	0.6	12.1	14.7	1.1	0.6	0.3
4	13.1	15.1	0.9	1.5	13.0	15.0	0.6	1.9	13.8	15.9	1.6	2.0	12.9	14.9	0.8	1.2	0.9
5	13.2	14.9	0.1	0.4	12.2	13.8	-0.8	0.0	12.0	13.8	-1.8	-0.9	12.1	13.7	-0.8	-0.3	1.2
6	13.5	15.3	0.3	0.6	13.7	15.5	1.5	0.6	13.7	15.6	1.7	1.0	13.5	15.3	1.4	0.6	0.2
95	12.6	13.9	-0.9	-1.9	12.8	14.0	-0.9	-1.8	12.7	14.0	-1.0	-1.8	12.5	13.8	-1.0	-1.9	0.3
96	<u>13.7</u>	<u>15.1</u>	1.1	-0.8	13.8	15.1	1.0	-1.0	13.6	15.0	0.9	-1.1	13.6	15.0	1.1	-0.8	0.2
<u>99*1</u>																	
14	13.3	15.0	-0.4	-0.5	13.3	14.8	-0.5	-0.4	13.2	14.9	-0.4	0.2	13.2	14.8	-0.4	-0.6	0.1
15	13.6	14.3	0.3	0.2	13.6	14.1	0.3	0.1	13.5	14.2	0.3	0.4	13.6	14.3	0.4	0.2	0.1
16	14.5	16.1	0.9	1.1	14.4	16.8	0.8	0.9	14.3	16.0	0.8	1.2	14.3	16.9	0.7	0.9	0.2
17	14.4	14.9	-0.1	0.8	14.5	14.9	0.1	0.8	14.3	14.9	0.0	1.0	14,4	15.0	0.1	1.0	0.2
18	14.7	15.3	0.3	1.1	15.0	15.5	0.5	1.4	14.7	15.4	0.4	1.1	14.8	15.5	0.4	0.8	0.3
19	14.5	15.1	-0.2	1.5	14.6	<u>15</u> .0	-0.4	0.9	14.4	15.0	-0.3	0.9	14.5	15.1	-0.3	0.8	0.2
20	14.4	15.2	-0.1	0.6	14.5	15.1	-0.1	0.4	14.5	15.4	0.1	0.9	14.3	15.1	-0.2	0.4	0.2
21	13.2	13.5	-1.2	0.0	13.4	13.6	-1.1	0.0	13.2	13.6	-1.3	0.1	13.2	13.5	-1.1	-0.1	0.2
22	14.8	15.3	1.6	0.9	15.1	15.5	1.7	1.2	14.9	15.4	1.7	1.2	14.9	15.4	1.7	1.4	0.3
7	13.7	14.0	-1.1	0.1	14.2	14.3	-0.9	0.1	14.5	14.7	-0.4	0.8	14.6	14.9	-0.3	0.2	0.9
8	13.7	14.1	0.0	-0.6	13.9	14.2	-0.3	-0.4	13.7	14.1	-0.8	-0.2	13.6	14.0	-1.0	-0.4	0.3
9	14.8	15.2	1.1	-0.1	15.1	15.5	1.2	0.4	14.2	14.6	0.5	-0.1	14.2	14.6	0.6	0.2	0.9
10	14.8	15.6	0.0	0.1	15.3	16.0	0.2	0.4	14.9	15.6	0.7	0.6	15.2	16.0	1.0	0.8	0.5
11	14.4	15.0	-0.4	-0.4	15.0	15.5	-0.3	0.3	14.6	15.1	-0.3	0.0	14.8	15.4	-0.4	0.3	0.6
12	14.2	14.7	-0.2	-0.3	14.3	14.6	-0.7	-0.1	14.4	14.8	-0.2	0.6	14.2	14.5	-0.6	0.1	0.2
13	14.9	15.3	0.7	0,4	15.0	15.2	0.7	0.6	15.1	15.4	0.7	1.5	14.9	15.3	0.7	0.8	0.2
23	14.0	14.9	-0.9	-0.6	14.5	<u>15.1</u>	-0.5	-0.3	14.3	15.1	-0.8	0.0	14.3	15.1	-0.6	-0.2	0.5
24*1	1.1	48.4			44.5	4.5.4			44.4	45.5	0.1	0.7	44.4	45.5			
25	14.0	15.1	0.0	-0.7	14.5	15.4	0.0	0.0	14.4	15.5	0.1	0.5	14.4	15.5	0.1	0.2	0.5
26	14.9	15.3	0.9	0.4	15.0	15.1	0.5	0.4	14.8	15.1	0.4	0.5	14.9	15.2	0.5	0.8	0.2
27	14.8	14.8	-0.1	0.0	14.8	14.6	-0.2	-0.3	14.7	14.7	-0.1	0.7	14.5	14.5	-0.4	0.2	0.3
28	13.9	14.7	-0.9	-1.2	14.1	14.7	-0.7	-0.8	13.9	14.7	-0.8 0.7	-0.6	14.1	14.9	-0.4	-0.4	0.2
29	14.7	15.3	0.8	0.0	14.9	15.4	0.8	0.1	14.6	15.2		0.3	14.9	15.5	0.8	0.4	0.3
30	14.8	15.2	0.1	0.5	15.1	15.4	0.2	0.7	14.8	15.2	0.2	1.0	14.8	15.2	-0.1	0.9	0.3
31	15.1	15.3	0.3	0.2	15.4	15.5	0.3	0.4	15.1	15.4	0.3	0.5	15.1	15.3	0.3	0.4	0.3
32	13.6	14.1	-1.5	-1.2	13.7	14.1	-1.7	-0.8	13.7	14.3	-1.4	-0.5	13.6	14.2	-1.5	-0.7	0.1

							(	leet D	oint #								
								est P		0							
	(COI	nca	st				-		rdner D								
	Fauion	nent Us	ad-	100' d		weter (			vel Vari val Leve		SAL 42	40870		Date: (	02/03/0	-	
Run	1			100 0	2	IVEICK (	50A-30	UU OIGI	3		3/11 43	40071	4	Date.	52/03/0	/	
	Time: 0	0:58:31			Time: 0	7:00:02		_	Time: 1	3.25.20			Time: 1	9.20.49	_		
Temp	40				34				30				35				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
33	14.8	15.5	1.2	0.0	15.0	15.6	1.3	0.0	14.8	15.5	1.1	0.5	14.9	15.5	1.3	0.5	0.2
34	14.6	15.4	-0.2	-0.1	14.7	15.5	-0.3	0.0	14.6	15.5	-0.2	0.3	14.8	15.6	-0.1	0.5	0.2
35	14.5	14.7	-0.1	-0.1	14.7	14.8	0.0	0.3	14.6	14.8	0.0	0.7	14.7	14.8	-0.1	0.5	0.2
36	14.6	15.2	0.1	0.6	14.9	15.3	0.2	1.0	15.0	15.5	0.4	1.3	14.8	15.2	0.1	0.9	0.4
37	15.1	15.9	0.5	0.6	15.1	15.7	0.2	0.5	15.1	15.8	0.1	0.9	15.0	15.7	0.2	0.7	0.1
38	15.1 14.9	15.3 14.6	0.0	1.0	15.1	15.1	0.0	0.9	15.1	15.1	0.0	1.7	15.1	15.1	0.1	1.3	0.0
40	14.8	14.0	-0.2	0.5	15.1	14.7	0.0	0.9	15.2	14.9	0.1	1.3	15.0	14.6	-0.1	1.1	0.3
41	15.0	15.4	0.1	-0.3	15.1	15.4	0.0	0.2	15.0	15.0			45.4	45.0			
42	14.9	15.4	-0.1	-0.3	15.1 15.1	15.4	0.0	-0.2 -0.3	15.2 15.1	<u>15.6</u> 15.4	0.0	0.4	15.1 15.2	15.5 15.5	0.1	0.2	0.2
43	15.6	15.8	0.7	-0.3	15.5	15.6	0.4	-0.5	15.5	15.8	0.4	0.1	15.2	15.5	0.1	-0.1	0.3
44	15.9	15.1	0.3	0.4	16.2	15.3	0.7	0.6	16.1	15.3	0.6	0.9	16.0	15.2	0.5	0.3	0.1
45	15.7	15.5	-0.2	0.1	15.8	15.5	-0.4	-0.1	15.4	15.2	-0.7	0.0	15.7	15.5	-0.3	0.2	0.4
46	16.0	15.6	0.3	0.0	16.0	15.5	0.2	0.0	16.0	15.6	0.6	0.4	15.8	15.4	0.1	0.2	0.2
47	13.4	14.8	-2.6	-0.8	13.5	14.8	-2.5	-0.7	13.2	14.6	-2.8	-0.7	13.3	14.7	-2.5	-0.8	0.3
48	15.7	15.4	2.3	-0.1	15.6	15.1	2.1	-0.1	15.6	15.4	2.4	0.2	15.6	15.3	2.3	0.1	0.1
49	16.2	15.4	0.5	0.8	16.3	15.4	0.7	0.7	16.0	15.3	0.4	0.9	16.2	15.5	0.6	0.9	0.3
50	15.5	15.1	-0.7	0.0	15.6	15.0	-0.7	-0.1	1 <u>5.</u> 4	15.1	-0.6	0.1	15.4	15.0	-0.8	0.2	0.2
51	16.1	15.3	0.6	0.4	16.3	15.4	0.7	0.5	16.0	15.1	0.6	0.8	16.3	15.5	0.9	0.7	0.3
52	16.0	15.2	-0.1	-0.2	16.0	15.2	-0.3	-0.3	15.7	15.1	-0.3	0.1	15.9	15.2	-0.4	-0.1	0.3
53	15.9	15.1	-0.1	-0.2	16.0	15.2	0.0	0.1	16.0	15.3	0.3	0.3	15.9	15.2	0.0	0.0	0.1
<u>54</u> 55	15.8	14.8	-0.1	-0.2	16.0	14.8	0.0	-0.4	15.8	14.8	-0.2	0.1	15.9	14.9	0.0	0.1	0.2
<u> </u>	16.4 16.1	15.5 15.2	0.6	0.5 -0.3	16.6 16.1	<u>15.4</u> 15.0	0.6 -0.5	_0.7 -0.3	16.4 16.1	15.4 15.2	0.6 -0.3	1.0 0.4	16.5	15.6	0.6	1.0	0.2
57	16.1	15.0	0.0	-0.3	16.1	15.0	0.5	0.2	16.1	15.2	-0.3	0.4	16.0 16.1	<u>15.0</u> 15.0	-0.5 0.1	-0.1 0.2	0.1
58	1.0.1	10.0	0.0	0.2	10.5	10.1	0.2	0.4	10.2	10.1	0.1	0.5	10.1	15.0	0.1	0.2	0.4
59	16.1	15.1	0.0	0.2	16.2	15.0	-0.1	0.2	16.4	15.4	0.2	0.7	16.4	15.4	0.3	0.7	0.3
60	16.3	15.5	0.2	0.1	16.5	15.6	0.3	0.5	16.4	15.5	0.0	0.8	16.4	15.5	0.0	0.6	0.2
61	15.9	15.5	-0.4	0.3	16.6	16.1	0.1	0.5	16.1	15.7	-0.3	0.7	16.4	16.0	0.0	0.8	0.7
62	16.4	15.7	0.5	0.3	16.6	15.8	0.0	0.6	16.4	15.7	0.3	0.8	16.4	15.7	0.0	0.5	0.2
63	16.5	15.4	0.1	0.2	16.9	15.6	0.3	0.7	16. <del>9</del>	15.7	0.5	0.8	16.7	15.5	0.3	0.7	0.4
64	16.1	15.4	-0.4	0.1	16.3	15.5	-0.6	0.4	16.4	15.7	-0.5	0.9	16.0	15.3	-0.7	0.2	0.4
65	16.5	15.8	0.4	-0.3	16.8	15.9	0.5	-0.3	16.5	15.8	0.1	0.0	16.7	16.0	0.7	0.0	0.3
<u>66</u> 67	16.1	15.4	-0.4	-0.5	16.2	15.4	-0.6	-0.3	16.0	15.4	-0.5	0.0	15.9	15.2	-0.8	-0.3	0.3
68	17.3 17.3	15.3 15.4	1.2 0.0	-0.2	17.3 17.2	15.2 15.1	1.1 -0.1	-0.4 -0.3	17.0	15.0	1.0	-0.1	17.4	15.3	1.5	0.4	0.4
69	16.9	16.5	-0.4	-0.2	17.2	16.5	-0.1	-0.3	17.2 17.2	15.3 16.7	0.2	0.3	17.2 17.0	15.3	-0.2	0.1	0.1
70	17.4	15.1	0.5	0.6	17.5	15.0	0.4	0.1	17.2	15.0	0.0	1.2	17.3	16.5 14.9	-0.2 0.3	0.3	0.3
71	17.9	15.1	0.5	1.8	17.9	14.9	0.4	1.9	17.8	15.0	0.1	2.2	17.9	15.2	0.5	2.0	0.2
72	15.8	14.9	-2.1	1.2	16.0	14.9	-1.9	1.8	15.9	15.1	-1.9	2.2	15.7	14.8	-2.2	1.7	0.1

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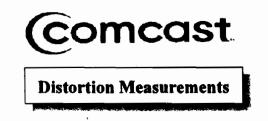
5109 Gardner Dr. 24 Hour Level Variation

Used:	100' drop, Wavetek SDA-5000 Signal Level Meter S/N 434057(	Date: 02/03/07
Useq.	TUU GIOD, VVZVELEK SUA-SUUU SIGNAI LEVEI MIELEI SIN 43403/1	

	Equipm	nent Us	ed:	<u>1</u> 00' d	rop, Wa	vetek (	SDA-50	00 Sigr			S/N 43	4057(		Date: (	02/03/0	7	
Run	1				2				3				4				
	Time: 00	0:58:31			Time: 0	7:00:02			Time: 1	3:25:20		-	Time: 1	9:20:49		-	
Temp	40				34				30				35				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
73	17.2	14.9	1.4	0.3	17.6	15.2	1.6	0.8	17.3	15.0	1.4	1.1	17.2	15.0	1.5	0.7	0.4
74	17.3	15.1	0.1	0.5	17.3	14.9	-0.3	0.6	17.1	14.9	-0.2	0.8	17.1	14.9	-0.1	0.6	0.2
75*1																	
76	17.1	14.9	-0.2	0.1	17.3	15.0	0.0	0.4	17.2	15.1	0.1	0.7	17.0	14.9	-0.1	_0.1	0.3
77	17.7	16.1	0.6	0.5	17.6	15.9	0.3	0.5	17.5	16.0	0.3	0.9	17.6	16.1	0.6	0.7	0.2
78*1																	
Min Value	11.0	11.7	-2.6	-1.9	11.1	11.8	-2.5	-1.8	11.1	11.8	-2.8	-1.8	11.0	11.7	-2.5	-1.9	0.0
Max Value	17.9	16.5	2.3	1.8	17.9	16.8	2.1	1.9	17.8	16.7	2.4	2.2	17.9	16.9	2.3	2.0	1.2

#### Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

#### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/- 2dB.

(comcast	
418 Bashford Ln.	
Alexandria, VA	
FCC Distortion Measurements	
EQUIPMENT USED:	
H/P 8591C, S/N 3916A04384	
Pre-Amplifier 85905A, S/N 6093-0551	
Comsonics Cybertec Examiner	
CONVERTER BOX SA 8511, S/N GF505BFDN	

	Date: 02/2	8/07	Time: 4:43	PM		Temp: 50	
		FREQ. RSP	HUM%	CSO	СТВ	C/N	4.5 DIFF
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max
	2	1.9	1.0	71.4	67.7	50.7	4.5000
	95	1.5	0.9	75.3	68.4	50.3	4.5000
	21	0.8	1.1	78.9	67.6	50.4	4.5001
	8	1.1	0.8	70.8	66.5	50.8	4.5001
	28	1.0	0.9	74.6	70.8	50.7	4.5000
	32	0.9	0.8	69.8	66.9	49.5	4.5001
	47	1.0	0.9	65.5	66.0	48.8	4.5000
	56	0.7	1.0	65.4	70.4	48.1	4.5000
	72	0.9	1.2	71.7	70.7	49.5	4.5000
um v	alues:	0.7	0.8	65.4	66.0	48.1	4.5000
ium v	alues:	1.9	1.2	78.9	70.8	50.8	4.5001

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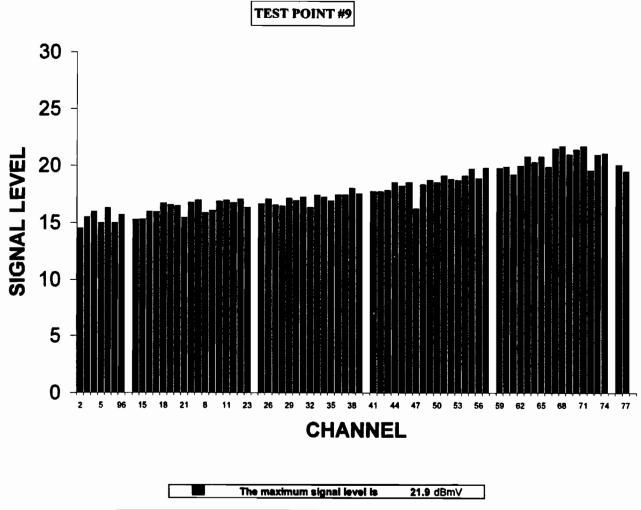
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The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum adjacent channel level difference is	2.7 dBmV
The maximum level difference between the highest and lowest is	7.3 dBm∨
The maximum six month variance is	3.6 dBm∨

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	Test Point #9																
	(cor	nca	st				4	18 Bas	hford L	n.							
	-							lour Le								_	
	Equipn	nent Us	sed:	100' d		wetek S	SDA-50	00 Sign	al Leve	el Meter	S/N 43	4057(		Date:	02/03/0	7	-
Run	1				2		_		3				4				
<u> </u>	Time: 00:38:34 Time: 06:37:											Time: 18:48:20					
Temp	40				34				30				35				
Chan	Vid	Aud	Adjent		Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent		Vid	Aud	Adjent		24 HR
	LVI	Diff	Diff	Diff	LvI	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Vid Diff
2	14.5	12.2		-2.1	16.0	12.2		0.0	14.8	12.4		-1.5	14.5	12.3		-1.7	1.5
3	15.5	15.0	1.0	-1.4	15.7	15.2	-0.3	-1.3	15.9	15.3	1.1	-0.8	15.7	15.3	1.2	-0.8	0.4
4	16.0	14.8	0.5	-0.4	16.0	14.9	0.3	-1.1	15.7	14.6	-0.2	-1.8	16.2	15.3	0.5	-0.6	0.5
5	15.0	14.4	-1.0	-2.0	14.7	13.9	-1.3	-2.0	15.3	14.3	-0.4	-2.3	15.1	14.2	-1.1	-2.0	0.6
6	16.3	16.0	1.3	-1.1	16.1	15.6	1.4	-1.5	16.0	15.3	0.7	-1.4	16.3	15.8	1.2	-1.0	0.3
95	15.0	14.2	-1.3	-3.2	15.1	14.3	-1.0	-3.2	15.0	14.1	-1.0	-3.0	15.0	14.2	-1.3	-3.0	0.1
96	15.7	15.3	0.7	-2.8	15.7	15.0	<u>0.6</u>	-2.8	15.8	15.0	0.8	-2.6	15.8	15.2	0.8	-2.5	0.1
99*1	15.0	15.0			45.0												
14	15.3	15.3	-0.4	-2.3	15.2	14.9	-0.5	-2.8	15.3	14.9	-0.5	-2.2	15.1	14.8	-0.7	-2.7	0.2
15	15.3	14.3	0.0	-2.0	15.2	14.0	0.0	-2.2	15.3	14.0	0.0	-2.0	15.3	14.2	0.2	-1.7	0.1
16	16.0	16.6	0.7	-1.3	15.9	16.4	0.7	-1.5	16.0	16.4	0.7	-1.3	15.9	16.4	0.6	-1.4	0.1
17	16.0	14.6	0.0	-1.4	16.1	14.7	0.2	-1.2	16.2	14.7	0.2	-0.9	16.0	14.6	0.1	-1.2	0.2
18	16.7	15.4	0.7	-1.0	16.6	15.3	0.5	-1.1	16.9	15.5	0.7	-0.5	<u>16.7</u>	15.4	0.7	-0.8	0.3
19	16.6	15.0	-0.1	-0.9	16.5	14.9	-0.1	-1.1	16.8	15.2	-0.1	-0.3	16.5	15.0	-0.2	-0.8	0.3
20	16.5	15.2	-0.1	-1.1	16.4	15.3	-0.1	-1.6	16.5	15.3	-0.3	-0.9	16.5	15.4	0.0	-0.8	0.1
21	15.5	14.0	-1.0	-2.2	15.7	14.3	-0.7	-2.1	15.8	14.3	-0.7	-1.9	15.8	14.4	-0.7	-1.6	0.3
22	16.8	15.2	1.3	-1.1	16.8	15.3	1.1	-1.2	16.9	15.4	1.1	-1.1	16.8	15.4	1.0	-1.2	0.1
7	17.0	15.2	0.2	-2.3	16.2	14.6	-0.6	-2.8	16.5	14.8	-0.4	-1.9	17.1	15.5	0.3	-1.8	0.9
8	15.9	14.5	-1.1	-2.9	16.0	14.7	-0.2	-3.1	16.2	14.8	-0.3	-2.7	16.0	14.7	-1.1	-2.6	0.3
9	16.1	14.7	0.2	-3.1	16.4	15.1	0.4	-2.6	16.7	15.3	0.5	-1.4	17.4	16.0	1.4	-1.3	1.3
10	16.9	15.7	0.8	-2.8	17.2	16.0	0.8	-2.5	17.4	16.1	0.7	-2.0 -2.2	<u>17.1</u> 17.1	15.9 15.6	-0.3 0.0	-2.1 -2.3	0.5
11	17.0	15.7	0.1	-2.6 -2.8	<u>17.0</u> 16.8	15.7 15.2	-0.2	-2.7 -3.2	17.2 16.8	15.7 15.1	-0.2	-2.2	16.9	15.0	-0.2	-2.3	0.2
12	<u>16.8</u> 17.1	15.2 15.3	0.3	-2.8	16.8	<u>15.2</u> 15.5	0.2	-3.2	10.8	15.1	0.6	-2.0	10.9	15.3	0.2	-1.9	0.1
23	16.4		-0.7	-1.9	17.3	15.5	-0.5	-2.4	16.7	15.6	-0.7	-1.0	16.7	15.4	-0.5	-2.3	0.3
23	10.4	15.3	-0.7	-3.1	10.8	15.5	-0.3	-2.4	10.7	10.4	-0.7	•2.0	10.7	19.5	-0.3	-2.3	
24-1	16.7	15.9	0.3	-2.4	16.8	15.8	0.0	-2.6	16.8	15.7	0.1	-2.1	16.8	15.8	0.1	-2.0	0.1
25	17.1	15.9	0.3	-2.4	17.0	15.0	0.0	-2.0	17.1	15.0	0.1	-2.1	17.1	15.0	0.1	-1.8	0.1
20	17.1	15.3	-0.5	-2.2	16.8	15.0	-0.2	-2.3	16.7	15.0	-0.4	-1.9	16.6	14.4	-0.5	-1.9	0.1
27	16.5	15.0	-0.5	-2.2	16.6	14.0	-0.2	-2.3	16.6	14.9	-0.4	-2.5	16.4	14.8	-0.2	-2.7	0.2
28	17.2	15.0	0.7	-3.0	17.3	15.0	0.7	-3.1	17.3	15.4	0.7	-2.5	17.2	15.5	0.8	-1.8	0.2
30	17.0	15.0	-0.2	-2.5	17.0	15.0	-0.3	-2.7	17.2	15.4	-0.1	-2.0	17.0	15.1	-0.2	-1.7	0.1
31	17.3	14.8	0.2	-2.7	17.0	14.3	0.0	-2.8	17.5	14.8	0.3	-2.0	17.3	14.7	0.3	-2.2	0.2
31	16.4	14.0	-0.9	-2.9	16.4	14.3	-0.6	-2.0	16.5	14.0	-1.0	-2.2	16.5	14.2	-0.8	-2.2	0.5
32	10.4	14.2	-0.8	•2.8	10.4	194.1	-0.0	-2.5	10.5	14.2	-1.0	-2.7	10.0	1.4.2	1 -0.0	-2.0	0.1

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	Test Point #9																
	(comcast 418 Bashford Ln. 24 Hour Level Variation																
	Eauina	aant i la	ad.	400' d		untek f	- · ·				CAL 42	40670		Data: (	02/02/03	,	
Run	Equipn	nent Us	ed.	100'0	2	VEICK	5UA-30	UU Sigr	al Leve		5/N 43	40571	4		2/03/07		
Run	Time: 0	0.38-34			Z Time: 0	8-37-43			Jime: 1	2.52.24			Time: 1	148-20		_	——
Temp	40 34 30											35	5.40.20				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth		Aud	Adjent	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
33	17.5	15.6	1.1	-1.8	17.5	15.5	1.1	-2.2	17.7	15.6	1.2	-1.4	17.6	15.6	1.1	-1.4	0.2
34	17.3	15.4	-0.2	-2.3	17.3	15.3	-0.2	-2.3	17.6	15.5	-0.1	-1.7	17.3	15.3	-0.3	-1.9	0.3
35	17.0	14.6	-0.3	-2.6	17.3	14.8	0.0	-2.5	17.5	14.9	-0.1	-2.1	17.3	14.8	0.0	-2.1	0.5
36	17.5	15.2	0.5	-1.8	17.5	15.1	0.2	-1.9	17.5	15.0	0.0	-1.6	17.4	15.1	0.1	-1.5	0.1
37	17.5	15.2	0.0	-2.4	17.5	15.2	0.0	-2.4	17.6	15.1	0.1	-2.0	17.5	15.2	0.1	-2.3	0.1
38	18.1	15.3	0.6	-1.4	17.9	15.1	0.4	-2.0	18.1	15.1	0.5	<u>-1.2</u>	18.0	15.2	0.5	-1.4	0.2
39	17.6	14.6	-0.5	-2.3	17.6	14.6	-0.3	-2.4	17.9	14,7	-0.2	-1.8	17.7	14.6	-0.3	-1.6	0.3
40*1																	
41	17.8	15.3	0.2	-2.4	17.8	15.3	0.2	-2.5	17.6	15.0	-0.3	-2.9	17.9	15,4	0.2	-2.2	0.3
42	17.8	15.4	0.0	-2.4	18.0	15.6	0.2	-2.6	18.0	15.4	0.4	-1.9	18.0	15.6	0.1	-1.5	0.2
43	17.9	15.5	0.1	-2.7	18.0	15.6	0.0	-2.8	18.2	15.7	0.2	-2.4	18.1	15.7	0.1	-2.1	0.3
44	18.6	15.1	0.7	-2.2	18.6	15.1	0.6	-2.4	.18.7	15.1	0.5	-2.1	18.5	15.0	0.4	-2.2	0.2
45	18.3	15.5	-0.3	-2.9	18.5	15.7	-0.1	-2.7	18.8	15.9	0.1	-2.2	18.5	15.8	0.0	-2.4	0.5
46	18.6	15.4	0.3	-2.9	18.7	15.5	0.2	-3.0	18.4	15.0	-0.4	-2.9	18.7	15.5	0.2	-2.7 -3.3	0.3
47 48	16.3	14.9	-2.3 2.1	-3.5 -3.1	16.2 18.5	14.8 15.0	-2.5 2.3	-3.6 -3.0	16.4 18.7	14.9	-2.0	-3.1 -2.8	16.0 18.5	14.6 15.0	-2.7	-3.3	0.4
48	18.4 18.8	14.9 14.7	0.4	-3.1	18.5	15.0	0.5	-3.0	19.3	15.0	<u>∠.</u> 3 0.6	-2.0	18.9	14.8	0.4	-2.0	0.5
50	18.6	15.4	-0.2	-2.7	18.6	15.3	-0.4	-2.8	18.8	15.4	-0.5	-2.1	18.6	15.4	-0.3	-2.4	0.2
50	19.2	15.3	0.6	-2.3	19.3	15.3	0.7	-2.2	19.2	15.1	0.4	-2.1	19.3	15.4	0.7	-1.9	0.1
52	18.9	14.9	-0.3	-2.7	18.9	14.8	-0.4	-3.0	18.8	14.7	-0.4	-2.4	18.8	14.8	-0.5	-2.5	0.1
53	18.8	14.7	-0.1	-3.1	18.9	14.8	0.0	-3.1	18.9	14.8	0.1	-2.7	18.9	14.8	0.1	-2.5	0.1
54	19.2	14.9	0.4	-2.7	19.3	15.0	0.4	-2.8	19.5	15.1	0.6	-2.3	19.2	14.9	0.3	-2.6	0.3
55	19.8	15.4	0.6	-2.1	19.9	15.5	0.6	-2.2	20.0	15.5	0.5	-1.8	19.9	15.5	0.7	-1.8	0.2
56	19.0	14.8	-0.8	-3.0	19.2	15.0	-0.7	-3.1	19.3	15.0	-0.7	-2.4	19.3	15.1	-0.6	-2.7	0.3
57	19.9	14.9	0.9	-2.6	19.9	14.9	0.7	-2.6	20.1	15.0	0.8	-2.1	19.9	15.0	0.6	-2.1	0.2
58*1																	
59	19.9	15.3	0.0	-2.1	20.0	15.3	0.1	-1.8	20.0	15.3	<u>-0.1</u>	<u>-1.5</u>	20.0	15.4	0.1	-1.7	0.1
60	20.0	15.8	0.1	-1.8	20.3	16.1	0.3	-1.8	20.1	15.8	0.1	-1.6	20.0	15.8	0.0	-1.7	0.3
61	19.3	15.2	-0.7	-2.5	19.4	15.4	-0.9	-2.4	19.8	15.6	-0.3	-1.7	19.6	15.6	-0.4	-1.7	0.5
62	20.1	15.7	0.8	-2.3	20.1	15.7	0.7	-2.4	20.3	15.8	0.5	-1.9	20.0	15.6	0.4	-2.2	0.3
63	20.9	15.6	0.8	-1.6	20.6	15.4	0.5	-2.2	20.9	15.5	0.6	-1.6	20.6	15.3	0.6	-1.8	0.3
64	20.4	15.4	-0.5	-2.2	20.3	15.3	-0.3	-2.6	20.4	15.3	-0.5	-2.1	20.4	15.4	-0.2	-1.7	0.1
65	20.9	15.9	0.5	-2.3	20.6	15.7	0.3	-2.7	20.9	15.7	0.5	-2.1	20.6	15.6 15.5	0.2	-2.4 -2.1	0.3
66 67	20.0	15.3	-0.9	-2.6	19.8 21.5	15.2 15.4	-0.8 1.7	-3.3 -2.3	20.4 21.7	15.5 15.2	-0.5 1.3	-2.0	20.2	15.5	1.2	-2.1	0.8
68	21.6 21.8	15.4 15.6	0.2	-2.1	21.5	15.4	0.1	-2.3	21.7	15.2	0.2	-1.4	21.4	15.6	0.4	-2.0	0.3
69	21.0	16.5	-0.7	-2.5	21.0	15.5	-0.6	-2.5	21.8	16.4	-0.8	-1.8	21.0	16.3	-0.8	-1.8	0.3
70	21.5	15.4	0.4	-2.5	21.3	15.4	0.3	-2.2	21.7	15.3	0.6	-1.2	21.6	15.4	0.6	-1.2	0.4
70	21.8	15.2	0.3	-0.6	21.5	15.1	0.2	-1.0	21.9	15.1	0.2	-0.6	21.8	15.2	0.2	-0.5	0.4
72	19.7	15.4	-2.1	-0.6	19.4	15.1	-2.1	-0.7	19.9	15.3	-2.0	-0.4	19.7	15.4	-2.1	-0.5	0.5

(comcast

21.1 15.0

15.6

15.6

16.3

21.2

20.2

19.6

Min Value 14.5 12.2

1.4

0.1

-1.0

-0.6

Max Value 21.8 16.6 2.1 -0.2 21.6 16.6 2.3

-0.6

-0.2

-0.2

-3.0

-2.3 -3.5 14.7

21.1

21.1

20.6

20.5

15.0 1.7

12.2 -2.5

0.0

-0.5

-0.1

15.5

15.3

15.6

418 Bashford Ln. 24 Hour Level Variation

21.2 15.0

21.4 15.6

20.6 15.8

19.8 16.3

0.5 21.9 16.4 2.3

1.3

0.2

-0.8

-0.8

.

14.8 12.4 -2.0 -3.1

-1.0 21.0

-0.5 21.2

20.2

19.4

14.5 12.3

0.8 21.8 16.4 2.5

-0.1

0.8

15.0 1.3

0.2

-1.0

-0.8

-2.7

15.6

15.7

16.2

-1.1

-0.7

-0.7

0.0

-3.3

0.0

0.2

0.3

0.4

1.1

0.1

1.5

.

	Equipn	nent Us	ed:	100' d	rop, Wa	vetek	SDA-50	00 Sigr	nal Leve	el Meter	r S/N 4340571				
Run	1				2				3			4			
	Time: 0	0:38:34			Time: D	5:37:43			Time: 1	2:52:24		Time: 1	8:48:20		
Temp	40				34				30			35	_		
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint 6 Mth	Vid	Aud	Adjent 6	Mth 24 HR

-0.3

0.5

-1.4

-3.2

-3.6

Notes:

73

74

75\*1

76

77

78\*1

\*1 - Channel removed from Analog line-up



**Distortion Measurements** 

Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. All of Comcast's test points are distributed through the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

#### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

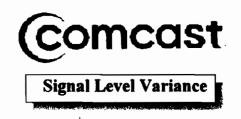
The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

(comcast	
5465 Colfax Ave.	
Alexandria, VA	
FCC Distortion Measurements	
	1 2 4
H/P 8591C, S/N 3916A04384	٦,
Pre-Amplifier 85905A, S/N 6093-0551	
Comsonics Cybertec Examiner	
CONVERTER BOX SA 8511, S/N GF505BFDN	

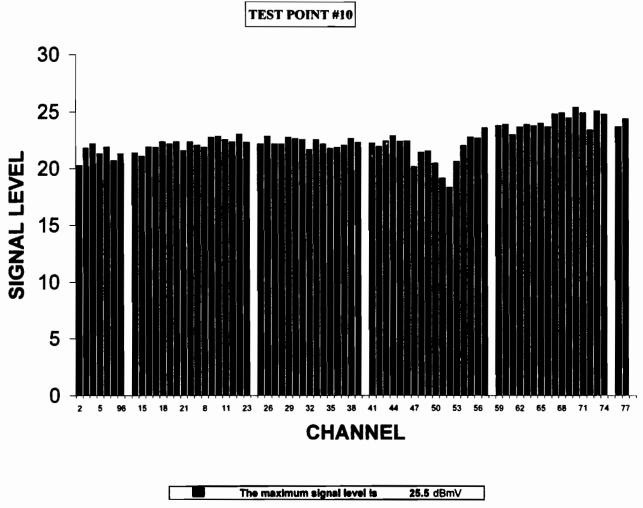
ħ

	Date:02/27	//07	Time: 3:21	PM ·	Temp: 50					
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	0.8	1.1	66.7	64.7	45.3	4.5000			
	95	1.9	0.8	65.9	63.6	45.9	4.5000			
	21	1.3	0.8	68.9	61.2	46.3	4.5001			
	8	1.3	0.6	67.7	64.8	46.7	4.5001			
	28	<u>1</u> .1	0.8	66.3	64.1	47.7	4.5000			
	32	0.8	0.8	64.5	65.8	47.8	4.5001			
	47	0.9	0.8	64.9	64.9	46.6	4.5000			
	56	0.9	0.8	65.3	62.3	45.0	4.5000			
	72	0.9	1.2	68.0	62.1	46.4	4.5000			
Minimum v	alues:	0.8	0.6	64.5	61.2	45.0	4.5000			
Maximum	values:	1.9	1.2	68.9	65.8	47.8	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



The maximum adjacent channel level difference is	2.4 dBmV
The maximum level difference between the highest and lowest is	7.9 dBmV
The maximum six month variance is	7.3 dBmV

							Т	est Pa	int #1	10								
	(cor	nca	st				Ę	5465 Co	olfax Av	e								
	-							lour Le										
	Equipr	nent Us	sed:	<u>100' d</u>		vetek :	SDA-50	00 Sigr	al Leve	el Mete	r <u>S/N 43</u>	340571		Date:	02/03/0	7		
Run	1				2	_	_		3		4							
	Time: 0	0:03:00				e: 06:02:48 Time: 12:02:42							Time: 18:00:50					
Temp	75				_ 74				80				85					
Chan	Vid	Aud	Adjcnt Diff			Aud	Adjent		Vid	Aud	Adjent		Vid	Aud	Adjoint			
2	Lvl 20.3	11.7		Diff	Lvi	Diff	Diff	Diff	_Lvi	Diff	Diff	Diff	Lvi	Diff	Diff	Diff	Vid Diff	
3	20.3	15.3	1.5	3.0 4.3	20.2 21.6	11.5 15.0	1.4	3.1 4.1	20.0 21.4	11.5 15.0	1.4	3.1 4.0	20.5 21.7	11.8 15.2	1.2	3.5	0.5	
4	21.8	15.4	0.4	<del>4</del> .3 5.2	21.6	14.8	0.0	4.2	21.4	15.0	0.5	3.9	21.7	14.5	-0.4	3.5	0.4	
5	21.3	14.8	-0.9	3.1	21.1	14.5	-0.5	2.7	21.4	15.0	-0.5	2.9	21.4	14.9	0.1	3.8	0.3	
6	21.9	15.7	0.6	4.2	21.7	15.5	0.6	4.0	21.7	15.8	0.3	4.3	22.1	15.9	0.7	4.6	0.4	
95	20.7	13.9	-1.2	1.8	20.6	13.8	-1.1	1.7	20.4	13.8	-1.3	2.0	20.5	13.8	-1.6	2.0	0.4	
96	21.3	14.6	0.6	2.9	21.5	14.9	0.9	3.2	21.3	14.8	0.9	3.2	21.3	14.7	0.8	3.4	0.2	
99*1			0.0		21.0	14.0	0.0	<u> </u>	21.0	14.0	0.0	0.2	21.0	1-1-1./	0.0	0.4	<b>V.</b>	
14	21.4	15.3	0.1	3.4	21.4	15.3	-0.1	4.1	21.2	0.9	-0.1	4.2	21.3	15.3	0.0	3.2	0.2	
15	21.1	13.9	-0.3	4.0	21.0	13.8	-0.4	3.9	20.7	13.7	-0.5	4.0	20.8	13.7	-0.5	4.2	0.4	
16	21.9	16.7	0.8	5.0	21.8	16.7	0.8	4.6	21.6	16.6	0.9	5.0	21.6	16.5	0.8	4.9	0.3	
17	21.9	14.7	0.0	4.9	22.0	14.8	0.2	5.0	21.7	14.7	0.1	5.2	21.7	14.6	0.1	4.9	0.3	
18	22.4	15.5	0.5	5.3	22.3	15.5	0.3	5.2	22.3	15.7	0.6	5.7	22.3	15.6	0.6	5.4	0.1	
19	22.2	15.0	-0.2	5.2	22.3	15.1	0.0	5.3	22.1	15.1	-0.2	5.4	22.2	15.1	-0.1	5.4	0.2	
20	22.4	15.4	0.2	4.4	22.4	15.4	0.1	4.5	22.1	15.4	0.0	4.7	22.3	15.4	0.1	4.8	0.3	
21	21.6	14.1	-0.8	4.5	21.6	14.0	-0.8	4.6	21.3	14.0	-0.8	4.7	21.3	13.9	-1.0	4.6	0.3	
22	22.4	15.1	0.8	4.8	22.5	15.1	0.9	4.9	22.5	15.3	1.2	5.3	22.5	15.2	1.2	5.1	0.1	
7	22.1	14.5	-0.3	4.5	22.9	15.3	0.4	4.6	22.1	14.7	-0.4	4.2	21.8	14.2	-0.7	4.3	1.1	
8	21.9	14.5	-0.2	4.0	21.8	14.4	-1.1	3.9	21.7	14.5	-0.4	4.1	21.9	14.4	0.1	4.4	0.2	
9	22.8	15.2	0.9	4.2	23.4	15.7	1.6	5.6	22.2	14.8	0.5	4,1	23.0	15.3	1.1	5.1	1.2	
10	22.9	15.6	0.1	4.5	23.0	15.6	-0.4	4.6	22.7	15.6	0.5	4.7	22.9	15.5	-0.1	5.0	0.3	
11	22.6	15.4	-0.3	4.4	22.9	15.5	-0.1	4.6	22.5	15.6	-0.2	4.6	22.8	15.4	-0.1	5.0	0.4	
12	22.4	15.0	-0.2	4.0	22.6	15.2	-0.3	4.0	21.8	14.7	-0.7	3.6	22.7	15.2	-0.1	4.4	0.9	
13	23.1	15.7	0.7	4.7	23.1	15.5	0.5	4.4	22.8	15.6	1.0	5.0	23.2	15.6	0.5	5.4	0.4	
23	22.4	15.3	-0.7	4.1	22.5	15.1	-0.6	4.0	22.3	15.4	-0.5	4,4	22.5	15.1	-0.7	4.6	0.2	
24*1																L		
25	22.2	15.7	-0.2	4.5	<u>22.4</u>	15.7	-0.1	4.9	22.0	<u>15.8</u>	-0.3	5.0	22.3	15.6	-0.2	5.2	0.4	
26	22.9	15.4	0.7	5.0	23.0	15.4	0.6	4.7	22.7	15.5	0.7	5.0	23.1	15.6	0.8	_5.4	0.4	
27	22.2	14.3	-0.7	4.0	22.4	14.3	-0.6	3.9	21.9	14.2	-0.8	4.5	22.4	14.3	-0.7	4.9	0.5	
28	22.2	<u>15.</u> 1	0.0	3.9	22.3	<u>15.</u> 1	-0.1	3.8	22.0	15.1	0.1	4.5	22.5	15.2	0.1	4.8	0.5	
29	22.8	15.9	0.6	4.9	<u>22.9</u>	15.8	0.6	4.6	22.4	15.7	0.4	5.2	22.9	15.8	0.4	5.2	0.5	
30	22.7	15.5	-0.1	4.7	22.8	15.5	-0.1	4.7	22.4	15.5	0.0	5.3	22.9	15.6	0.0	5.6	0.5	
31	22.6	15.0	-0.1	4.5	22.8	15.1	0.0	4.7	22.4	15.0	0.0	4.9	22.9	15.1	0.0	5.3	0.5	
32	21.7	<u>14.5</u>	-0.9	3.9	21.7	14.4	-1.1	3.9	21.6	14.6	-0.8	4.1	21.8	14.5	-1.1	4.3	0.2	

							T	est Pa	int #1	0							
	(cor	nca	st				5	465 Co	offax Av	8							
	-								vel Varl							_	
	Equipn	nent Us	sed:	<u>100' d</u>		velek a	SDA-50	00 Sigr	al Leve	H Meter	S/N 43	4057(		Date: 0	02/03/07	7	
Run	1				2		<u> </u>		3			4					
Temp		Time: 00:03:00 Time: 06:02:48 75 74								2:02:42			Time: 18:00:50				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adicat	6 Mth	80 Vidi	Aud	Adiant	6 Mth	Vid	امديد	Adiont	C MAN	24.40
33	22.6	15.7	0.9	5.3	22.6	15.6	0.9	5.2	22.2	15.5	Adjont 0.6	4.8	22.5	Aud 15.5	0.7	6 Mth 5.2	24 HR 0.4
34	22.2	15.9	-0.4	5.2	22.1	15.7	-0.5	5.1	21.7	15.6	-0.5	5.0	22.0	15.6	-0.5	5.2	0.5
35	21.8	15.2	-0.4	4.3	21.9	15.3	-0.2	4.0	21.8	15.4	0.1	4.4	22.1	15.6	0.1	4.8	0.3
36	21.9	15.4	0.1	5.0	22.0	15.4	0.1	5.0	21.7	15.3	-0.1	5.0	22.0	15.5	-0.1	5.5	0.3
37	22.1	15.5	0.2	4.7	22.0	15.3	0.0	4.2	21.9	15.6	0.2	4.9	22.0	15.3	0.0	5.0	0.2
38	22.7	15.7	0.6	5.3	22.8	15.7	0.8	5.3	22.2	15.4	0.3	5.2	22.7	15.6	0.7	5.5	0.6
39	22.4	15.2	-0.3	4.9	22.4	15.1	-0.4	4.8	22.1	15.2	-0.1	4.9	22.4	15.1	-0.3	5.2	0.3
40*1																	
41	22.3	15.3	-0.1	4.7	22.3	15.2	-0.1	4.8	22.0	15.2	-0.1	4.7	22.3	15.2	-0.1	5.2	0.3
42	22.0	15.1	-0.3	5.0	22.0	15.1	-0.3	4.8	21.6	15.0	-0.4	5.1	22.0	15.1	-0.3	5.6	0.4
43	22.5	15.7	0.5	4.4	22.2	15.3	0.2	4.0	22.1	15.4	0.5	4.6	22.6	15.7	0.6	5.2	0.5
44	23.0	15.4	0.5	4.2	23.1	15.5	0.9	4.3	23.0	15.7	0.9	4.7	23.1	15.5	0.5	4.7	0.1
45	22.5	<u>15.7</u>	-0.5	3.8	22.5	15.8	-0.6	3.8	22.3	15.8	-0.7	4.5	22.5	15.7	-0.6	4.4	0.2
46	22.5	15.5	0.0	5.3	22.6	15.4	0.1	5.3	22.2	<u>15.3</u>	-0.1	<u>5.1</u>	22.5	<u>15.1</u>	0.0	5.5	0.4
47	20.2	16.2	-2.3	4.0	20.2	16.2	-2.4	4.3	20.1	16.5	-2.1	4.4	20.3	16.1	-2.2	4.8	0.2
48	21.5	15.1	1.3	3.6	21.6	15.1	1.4	3.4	21.2	15.0	1,1	3.9	21.8	15.2	1.5	4.5	0.6
49	21.6	15.5	0.1	3.4	21.9	15.6	0.3	3.8	21.8	15.6	0.6	4.0	22.1	15.5	0.3	4.4	0.5
50	20.5	16.8	-1.1	2.0	20.9	16.7	-1.0	2.4	20.9	16.7	-0.9	3.1	21.3	16.8	-0.8	3.3	0.8
<u>51</u> 52	<u>19.2</u> 18.4	15.7 12.9	<u>-1.3</u> -0.8	1.1 -0.5	<u>19.5</u> 18.4	16.0 13.2	-1.4	1.1 -0.4	<u>19.4</u> 17.4	<u>16.5</u> 13.0	-1.5 -2.0	<u>1.5</u> -1.0	20.0 17.6	16.9 13.2	-1.3 -2.4	2.1 -0.9	0.8 1.0
52	20.7	14.3	2.3	-0.5	20.6	13.2	2.2	-0. <del>4</del> 1.8	19.8	14.2	2.4	1.2	17.0	13.2	2.1	-0.9	1.0
53	20.7	15.1	1.4	3.4	20.0	14.8	1.2	3.2	21.4	14.9	1.6	3.4	21.7	14.8	2.0	3.6	0.7
55	22.9	15.1	0.8	4.2	22.8	15.0	1.0	4.3	22.2	14.8	0.8	4.1	22.5	14.8	0.8	4.2	0.7
56	22.8	14.7	-0.1	3.9	22.5	14.4	-0.3	3.5	22.4	14.7	0.2	3.7	22.6	14.5	0.1	4.5	0.4
57	23.7	14.8	0.9	4.3	23.5	14.6	1.0	4.1	23.3	14.7	0.9	4.4	23.7	14.9	1.1	4.8	0.4
58*1			1				-										
59	23.9	15.1	0.2	5.4	24.0	15.1	0.5	5.5	23.4	14.9	0.1	5.5	24.0	15.2	0.3	6.1	0.6
60	24.0	15.7	0.1	5.4	23.9	15.6	-0.1	5.3	23.6	15.7	0.2	5.5	24.0	15.7	0.0	6.0	0.4
61	23.1	15.4	-0.9	4.2	23.1	15.4	-0.8	4.2	23.4	16.1	-0.2	5.2	23.5	15.8	-0.5	5.2	0.4
62	23.8	15.7	0.7	4.9	23.9	15.8	0.8	5.0	23.6	15.8	0.2	5.3	23.9	15.8	0.4	5.6	0.3
63	24.0	15.2	0.2	4.8	24.1	15.2	0.2	4.8	23.9	15.5	0.3	4.9	24.3	15.5	0.4	5.4	0.4
64	23.9	15.5	-0.1	5.5	23.9	15.5	-0.2	5.4	23.6	15.5	-0.3	5.7	23.9	15.5	-0.4	6.1	0.3
65	24.1	15.5	0.2	5.8	23.8	15.2	-0.1	5.2	23.6	15.3	0.0	5.8	24.0	15.3	0.1	6.0	0.5
66	23.8	15.3	-0.3	4.9	24.0	15.5	0.2	5.3	23.5	15.2	-0.1	5.2	23.8	15.3	-0.2	5.4	0.5
67	24.9	15.0	1.1	5.0	24.9	15.0	0.9	4.9	24.7	15.1	1.2	5.2	25.1	15.2	1.3	5.5	0.4
68	25.0	15.1	0.1	5.5	25.0	15.0	0.1	5.4	24.7	15.1	0.0	5.9	25.0	15.1	-0.1	6.1	0.3
<u>69</u>	24.6	16.2	-0.4	5.1	24.9	16.4	-0.1	5.6	24.6	16.5	-0.1	5.8	25.1	16.7	0,1	6.1	0.5
70	25.5	15.6	0.9	5.7	25.5	15.6	0.6	5.8	25.0	15.5	0.4	5.9	25.5	15.6	0.4	6.5	0.5
71	25.0	14.6	-0.5	6.3 6.0	<u>25.3</u> 23.4	<u>14.9</u> 14.7	-0.2	6.5	24.9 23.3	14.8 15.0	-0.1 -1.6	6.9 6.4	25.4 23.6	14.9 15.0	<u>-0.1</u> -1.8	7.3 6.7	0.5
12	23.5	14.8	<u>-1.5</u>	0.0	23.4	L 14.7	1-1.8	0.0	23.3	15.0	0.1-	0.4	<b>Z</b> J.0	10.0	-1.0	0.7	0.3

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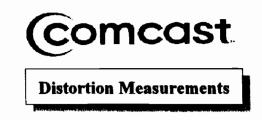
5465 Colfax Ave 24 Hour Level Variation

Equipment Used: 100' drop, Wavetek SDA-5000 Signal Level Meter S/N 4340571 Date: 02/03/07

Run	1				2				3				4				
	Time: 0	0:03:00			Time: 0	ne: 06:02:48				2:02:42			Time: 18:00:50				
Temp	75				74				80				85				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
73	25.2	15.5	1.7	6.1	25.1	15.3	1.7	6.2	24.9	15.4	1.6	6.6	25.1	15.3	1.5	6.7	0.3
74	24.9	15.8	-0.3	6.2	24.9	15.7	-0.2	6.1	24.5	15.6	-0.4	6.3	24.9	15.6	-0.2	6.8	0.4
75*1																	
76	23.8	1 <u>4.</u> 3	-1.1	5.3	24.0	14.4	-0.9	5.6	23.5	14.4	-1.0	5.5	23.9	14.3	-1.0	5.9	0.5
77	24.5	15.2	0.7	6.4	24.6	15.2	0.6	6.3	24.3	15.2	0.8	6.8	24.3	14.8	0.4	6.9	0.3
78*1																	
Min Value	18.4	11.7	-2.3	-0.5	18.4	11.5	-2.4	-0.4	17,4	0.9	-2.1	-1.0	17.6	11.8	-2.4	0.9	0.1
Max Value	25.5	<u>16.8</u>	2.3	6.4	25.5	16.7	2.2	6.5	25.0	16.7	2.4	6.9	25.5	16.9	2.1	7.3	1.2

Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Contract the outer edges of the county at its farthest node locations, with the test points being at the end-of-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

#### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

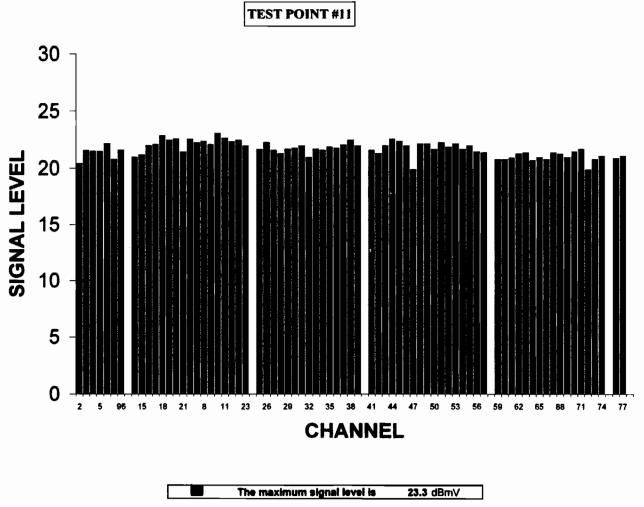
The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

#### Comcost 2357 N Early St. Alexandria, VA FCC Distortion Measurements EQUIPMENT USED: H/P 8591C, S/N 3916A04384 Pre-Amplifier 85905A, S/N 6093-0551 Comsonics Cybertec Examiner CONVERTER BOX SA 8511, S/N GF505BFDN

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	Date: 02/27	7/07	Time: 4:39	PM	Temp: 45				
		FREQ. RSP	HUM%	CSO	CTB	C/N	4.5 DIFF		
	<u>CH.</u>	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max		
	2	1.3	1.0	74.0	68.4	51.5	4.5000		
	95	2.0	0.7	72.7	63.9	52.1	4.5000		
	21	1.4	1.0	71.0	70.8	53.0	4.5001		
	8	1.3	0.6	69.8	69.4	52.5	4.5001		
	28	1.2	0.7	67.5	71.1	52.7	4.5000		
	32	1.0	0.7	64.2	67.3	52.2	4.5001		
	47	1.3	0.7	65.8	68.0	51.3	4.5000		
	56	0.9	0.8	65.9	68.0	50.6	4.5000		
	72	0.9	1.1	61.8	67.1	51.3	4.5000		
Minimum v	alues:	0.9	0.6	61.8	63.9	50.6	4.5000		
Maximum	values:	2.0	1.1	74.0	71.1	53.0	4.5001		



The maximum adjacent channel level difference is	2.6 dBmV
The maximum level difference between the highest and lowest is	5.9 dBmV
The maximum six month variance is	6.7 dBmV

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							Test Point #11										
	(cor	nca	st					2357 N	Early S	t	e.						
	-						- · ·		vel Vari								
	Equipn	nent Us	ed:	100' d		vetek S	SDA-50	00 Sigr		Meter	S/N 43	4057(	_	Date: (	02/03/0	7	
Run	1				2				3				4				
	Time: 0	0:17:59			Time: 0	<u>8:18:21</u>			Time: 1	<u>2:19:17</u>				8:16:12			
Temp	40	Arred		0.144	34	Aud	A	0.144	30	A	A .41	0.14	35	A	<b>A</b> - <b>M</b> = - 4	0.14	
Chan	Vid Lvi	Aud	Adjcnt Diff	6 Mth Diff	Vid Lvi	Aud Diff	Adjcnt Diff	Diff	Vid Lvl	Aud Diff	Diff	6 Mth Diff	Vid Lvl	Aud	Adjont Diff	Diff	24 HR Vid Diff
2	20.4	11.7		4.2	17.4	16.0	011	0.1	20.2	11.6		2.9	20.4	11.6		3.1	3.0
3	21.6	14.9	1.2	4.7	18.4	16.2	1.0	0.6	21.7	15.0	1.5	4.1	21.7	15.0	1.3	3.9	3.3
4	21.5	14.5	-0.1	4.7	18.9	16.4	0.5	0.5	22.8	15.9	1.1	4.7	21.8	14.7	0.1	2.6	3.9
5	21.5	14.6	0.0	4.5	18.9	16.5	0.0	1.0	21.0	14.2	-1.8	3.4	21.3	14.4	-0.5	2.9	2.6
6	22.2	15.6	0.7	5.0	19.0	16.5	0.1	1.0	22.2	15.7	1.2	4.2	22.1	15.5	0.8	4.0	3.2
95	20.8	13.8	-1.4	2.4	17.5	14.8	-1.5	-1.7	20.8	13.9	-1.4	1.7	21.0	14.1	-1.1	1.9	3.5
96	21.6	14.8	0.8	3.2	17.9	15.1	0.4	-0.8	21.5	14.8	0.7	2.7	21.6	14.9	0.6	3.0	3.7
<del>9</del> 9*1																	
14	21.0	14.9	-0.6	3.3	20.0	14.0	2.1	2.0	20.8	14.8	<u>-0.7</u>	3.1	21.1	15.1	-0.5	3.1	1.1
15	21.2	14.1	0.2	3.7	21.2	14.0	1.2	3.4	21.2	14.1	0.4	3.4	21.2	14.1	0.1	3.4	0.0
16	22.0	16.8	0.8	4.7	22.1	15.1	0.9	4.5	21.9	16.8	0.7	4.3	21.9	16.7	0.7	4.2	0.2
17	22.1	14.7	0.1	4.8	22.0	14.7	-0.1	4.1	21.8	14.5	-0.1	4.0	21.8	14.5	-0.1	4.0	0.3
18	22.9	15.9	0.8	5.4	22.8	15.8	0.8	4.7	22.7	15.8	0.9	4.8	22.9	15.9	1.1	4.7	0.2
19	22.5	14.7	-0.4	5.5	22.7	14.8	-0.1	5.0	22.6	14.8	-0.1	4.8	22.5	14.7	-0.4	4.5	0.2
20	22.6	15.4	0.1	4.7	22.5	15.3	-0.2	4.0	22.5	15.4	-0.1	3.9 3.7	22.3	15.2 13.9	-0.2	3.9 3.7	0.3
21	21.5	13.9 15.0	-1.1	4.5 4.9	21.4 22.5	13.8 14.9	<u>-1.1</u> 1.1	3.3 3.9	21.5	13.9 15.1	<u>-1.0</u>	4.1	21.5 22.5	13.9	1.0	3.7	0.1
<u>22</u> 7	22.6 22.3	15.0	<u>1.1</u> -0.3	4.9 4.7	22.5	15.0	0.3	3.8	22.8	15.1	0.2	3.9	22.5	15.3	0.5	4.2	0.1
8	22.3	14.9	0.1	4.4	22.4	14.8	-0.4	3.6	22.3	14.9	-0.5	3.8	23.0	14.7	-0.7	3.2	0.1
9	22.4	14,4	-0.3	3.1	22.5	14.7	0.1	2.4	23.0	15.3	0.7	3.5	23.0	15.2	0.7	3.2	0.9
10	23.1	15.8	1.0	3.8	23.3	15.9	0.8	3.2	22.9	15.7	-0.1	3.0	23.3	15.8	0.3	3.5	0.4
11	22.7	15.5	-0.4	3.6	22.8	15.5	-0.5	3.0	22.7	15.6	-0.2	3.1	22.9	15.6	-0.4	3.3	0.4
12	22.4	15.3	-0.3	3.4	22.5	15.3	-0.3	2.8	22.4	15.5	-0.3	3.0	22.5	15.3	-0.4	3.0	0.1
13	22.5	15.4	0.1	4.3	22.8	15.5	0.3	3.6	22.5	15.5	0.1	3.6	23.0	15.6	0.5	4.4	0.5
23	22.0	15.3	-0.5	3.8	22.1	15.3	-0.7	2.9	21.9	15.3	-0.6	3.0	22.1	15.3	-0.9	3.1	0.2
24*1																	
25	21.7	15.7	-0.3	4.1	21.8	15.6	-0.3	3.2	21.5	15.5	-0.4	2.9	21.9	15.7	-0.2	3.5	0.4
26	22.3	15.4	0.6	4.6	22.4	15.5	0.6	3.7	22.3	15.5	0.8	3.9	22.5	15.6	0.6	3.9	0.2
27	21.6	14.5	-0.7	4,1	21.6	14.4	-0.8	2.9	21.6	14.6	-0.7	3.1	21.8	14.6	-0.7	3.4	0.2
28	21.3	15.2	-0.3	3.3	21.0	<u>14.7</u>	-0.6	2.1	21.3	15.2	-0.3	2.8	21.5	15.2	-0.3	2.6	0.5
29	21.7	15.8	0.4	3.6	22.0	15.9	1.0	3.2	21.8	15.9	0.5	3.1	22.0	15.9	0.5	3.3	0.3
30	21.8	15.5	0.1	4.0	21.9	15.5	-0.1	3.1	21.7	15.4	-0.1	2.9	21.8	15.4	-0.2	3.2	0.2
31	22.0	15.0	0.2	4.3	21.9	14.8	0.0	3.2	21.7	14.9	0.0	3.0	22.0	14.9	0.2	3.1	0.3
32	21.0	14.6	-1.0	3.1	21.0	14.5	-0.9	2.5	20.6	14.3	-1.1	2.2	21.0	14.5	-1.0	2.4	0.4

							T	est Po	int #1	.1	F						
	(col	mca	st				2	2357 N	Early S	t	÷.						
	G						24 H	lour Lev	vel Vari	ation							
	Equipr	nent Us	ed:	100' d	rop, Wa	vetek S	SDA-50	00 Sign		i Meter	S/N 43	4057(		Date: 0	2/03/07	7	
Run	1				2				3				4				
L		0:17:59			Time: 0	8:18:21			Time: 1	2:19:17			Time: 1	8:16:12			
Temp	40				34				30				35				
Chan			Adjent		Vid		Adjent				Adjent						24 HR
33	21.7 21.6	15.2	0.7	4.2	21.9	15.3	0.9	3.6	21.9	15.5	1.3	3.8	21.8	15.2	0.8	3.5	0.2
34	21.0	15.2 15.2	-0.1 0.3	4.0 4.2	21.8 22.2	15.3 15.4	-0.1 0.4	3.6 3.9	21.5 21.8	15.2 15.2	-0.4 0.3	<u>3.3</u> 3.3	21.9	15.4	0.1	3.8 3.7	0.4
35	21.8	15.2	-0.1	4.2	22.2	15.4	-0.2	3.8	21.0 21.9	15.2	0.3	3.3 3.8	22.1 22.0	15.3 15.1	0.2 -0.1	4.1	0.4
37	22.1	15.5	0.3	4.0	22.0	15.4	0.1	3.2	22.1	15.5	0.1	3.6	22.3	15.5	0.3	3.8	0.2
38	22.5	15.9	0.4	4.4	22.7	15.9	0.6	3.8	22.6	16.1	0.5	3.8	22.8	16.2	0.5	3.8	0.2
39	22.0	15.1	-0.5	4.0	22.1	15.1	-0.6	3.4	21.7	14.9	-0.9	3.0	21.7	14.8	-1.1	3.4	0.4
40*1			<b>.</b>													<b>U</b> , <b>T</b>	
41	21.6	<u>15,1</u>	-0.4	3.2	21.8	15.2	-0.3	2.8	21.6	15.3	-0.1	2.9	21.7	15,2	0.0	2.9	0.2
42	21.3		-0.3	3.2	21.7	15.2	-0.1	3.1	21.4	15.3	-0.2	3.1	21.6	15.2	-0.1	3.2	0.4
43	22.0	15.5	0.7	4,2	22.0	15.5	0.3	3.4	21.6	15.3	0.2	2.9	22.1	15.6	0.5	3.4	0.5
44	22.6		0.6	4.9	22.9	15.5	0.9	4.1	22.5	15.5	0.9	3.5	22.8	15.5	0.7	3.8	0.4
45	22.4	16.2	-0.2	4.5	22.5	16.2	-0.4	3.3	22.1	16.0	-0.4	2.7	22.3	16.0	-0.5	3.2	0.4
46	22.0 19.9	15.0	-0.4	3.7	<u>.22.0</u> 19.6	15.0	-0.5	2.8	<u>21.8</u> 19.7	15.0	-0.3	2.5	22.1	15.1 14,4	-0.2 -2.5	2.7	0.3
48	22.2	14.9 15.8	-2.1 2.3	3.4 4.8	22.2	14.4 15.6	-2.4 2.6	2.3 3.9	21.7	14.7 15.4	-2.1 2.0	2.2 3.2	19.6 22.2	15.6	- <u>2.5</u> 2.6	2.1 3.5	0.5
40	22.2	15.8	0.0	<del>9</del> .0 5.3	22.4	15.6	<u>₹.0</u> 0.2	3.8 4.4	22.1	15.4	0.4	<u>3.</u> ∡ 3.8	22.2	15.0	<u>∡.0</u> 0.0	3.9	0.3
50	21.7	15.3	-0.5	4.7	21.9	15.4	-0.5	4.1	21.7	15.5	-0.4	4.0	21.7	15.2	-0.5	3.8	0.2
51	22.3		0.6	5.1	22.4	15.2	0.5	4.3	22.1	15.2	0.4	4.5	22.3	15.1	0.6	4.5	0.2
52	21.9	14.9	-0.4	4,4	21.9	14.6	-0.5	3.7	21.6	14.7	-0.5	3.1	21.8	14.6	-0.5	3.7	0.3
53	22.2	15.8	0.3	4.5	22.2	15.6	0.3	3.8	22.0	15.6	0.4	3.6	22.1	15.5	0.3	3.9	0.2
54	21.7	15.4	-0.5	4.3	21.7	15.3	-0.5	3.2	21.5	15.4	-0.5	3.3	21.7	15.4	-0.4	3.7	0.2
55	22.0	15.5	0.3	4.7	22.0	15.3	0.3	3.9	21.7	15.3	0.2	3.9	21.9	15.3	0.2	4,1	0.3
56	21.5	15.3	-0.5	4.6	21.6	15.3	-0.4	3.8	21.3	15.3	-0.4	4.0	21.3	15.1	-0.6	3.7	0.3
57	21.4	15.0	-0.1	5.0	21.6	15.0	0.0	4.5	21.3	14.9	0.0	5.0	21.6	15.1	0.3	4.6	0.3
<u>58*1</u>	-					10.0				4.6.5				44.5			
<u> </u>	20.8	15.2	-0.6	5.5	21.3	15.5	-0.3	5.2	20.7	15.2	-0.6	5.1	21.2	15.5	-0.4	5.2	0.6
60 61	20.8	15.0	0.0	4.7	<u>20.8</u> 20.6	<u>15.0</u> 15.3	-0.5 -0.2	4.1	20.6 21.0	15.0 15.9	-0.1 0.4	4.2	20.5 21.2	14.7 16.0	-0.7 0.7	3.9 4.5	0.3
	20.9 21.3		0.1	4./	20.6	15.3	-0.2	3.7 4.5	21.0	15.9	0.4	4.3 4.4	21.2	15.9	0.7	4.5	0.8
62 63	21.3	15.9 15.6	0.4	5.5	21.4	15.9	0.8	4.8	21.2	15.4	0.2	4.6	21.5	15.6	0.1	4.8	0.2
64	20.7	15.0	-0.7	5.0	20.8	15.0	-0.8	4.4	20.5	15.4	-0.7	4.2	20.7	15.0	-0.9	4.3	0.4
65	21.0	15.7	0.3	5.4	20.9	15.5	0.1	4.6	20.4	15.2	-0.1	4.5	20.8	15.4	0.0	4.5	0.6
66	20.8	15.9	-0.2	5.3	21.0	16.0	0.1	5.1	20.5	15.7	0.1	4.8	20.7	15.8	-0.1	4.9	0.5
67	21.4	15.4	0.6	5.5	21.5	15.4	0.5	5.0	21.2	15.3	0.7	5.0	21.7	15.6	1.0	5.2	0.5
68	21.3	15.4	-0.1	5.7	21.4	15.3	-0.1	5.2	21.1	15.3	-0.1	5.2	21.3	15.4	-0.4	5.4	0.3
69	21.0	16.4	-0.3	5.2	20.9	16.2	-0.5	4.7	<u>21.1</u>	16. <u>5</u>	0.0	4.9	21.3	16.7	0.0	5.1	0.4
70	21.5		0.5	5.2	21.6	15.2	0.7	5.1	21.4	15.3	0.3	5.1	21.4	15.1	0.1	5.0	0.2
71	21.7		0.2	6.5	21.9	15.1	0.3	6.1	21.6	15.1	0.2	6.2	21.8	15.1	0.4	6.4	0.3
72	19.9	15.0	-1.8	6.2	19.9	14.9	-2.0	6.0	19.6	14.9	-2.0	5.8	19.8	14.9	<u>-2.</u> 0	5.7	0.3

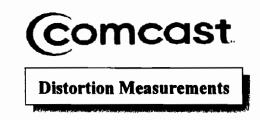
(comcast

2357 N Early St 24 Hour Level Variation 100' drop, Wavetek SDA-5000 Skinal Level Meter S/N 434057(

	Equipn	nent Us	ed:	100' d	rop, Wa	vetek s	-		nal Leve		r S/N 43	40571		Date: (	02/03/07	7	
Run	1				2				3				4				_
Time: 00:17:59					Time: 06:18:21				Time: 12:19:17				Time: 1	8:16:12			
Temp	40				34				30				35				
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	24 HR
73	20.8	14.6	0.9	5.4	21.4	15.1	1.5	5.6	21.0	15.0	1.4	5.5	21.2	14.9	1.4	5.5	0.6
74	21.1	15.3	0.3	6.1	21.2	15.1	-0.2	5.4	20.9	15.1	-0.1	5 <u>.7</u>	21.1	15.2	-0.1	5.9	0.3
75*1																	
76	20.9	15.2	-0.2	6.0	21.1	15.2	-0.1	5.7	20.9	15.3	0.0	5.9	21.1	15.3	0.0	6.1	0.2
77	21.1	15.8	0.2	6.7	21.2	15.6	0.1	<u>5.9</u>	20.9	15.7	0.0	6.2	21.1	15.6	0.0	6.1	0.3
<b>78</b> ⁺1																	
Min Va <b>lue</b>	19.9	11.7	-2.1	2.4	17,4	13.8	-2.4	-1.7	19.6	11.6	-2.1	1.7	19.6	11.6	-2.5	1.9	0.0
Max Value	23.1	16.8	2.3	6.7	23.3	16.5	2.6	6.1	23.0	16.8	2.0	6.2	23.3	16.7	2.6	6.4	3.9

Notes:

\*1 - Channel removed from Analog line-up



Comcast of Alexandria, VA performed distortion tests at 12 test points, as required by the FCC (76.601 (c)(1)), which states that at least 6 test points for the first 12,500 subscribers, adding 1 test point for each additional 12,500 subscribers. Contraction of the outer edges of the county at its farthest node locations, with the test points being at the endof-line. Which meets the requirement that all geographic areas be represented and at least 1/3 of the test points being the most distant points in the system. At each test point, 9 channels were tested for distortions as required by the FCC (76.601(c)(2)), which states at least 4 channels must be tested at each test point, adding 1 channel for each 100 MHz block above 100 MHz. Comcast of Arlington's analog bandwidth is 550 MHz.

### Current FCC distortion specifications are as follows:

The C/N measurement (76.605 (a)(7)(ii)) shall not be less than 43dB.

The CTB, CSO and X-mod measurements (76.605 (a)(8)(I)) shall not be less than 51dB.

The HUM measurement (76.605(a)(10)) shall not exceed 3.0%.

The Aural Carrier Difference (4.5 Difference)(76.605 (a)(2)) must be 4.5 MHz above the Visual Carrier, +/- 5KHz.

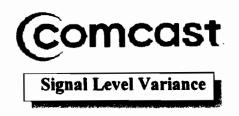
The In-Channel Frequency Response (In-Band Frequency Response) (76.605 (a)(6)) should not vary by more than +/-2dB.

# Head End

(çomcast	
3900 Wheeler Ave.	
Alexandria, VA	
FCC Distortion Measurements	
EQUIPMENT USED:	
H/P 8591C, S/N 3916A04384	•
Pre-Amplifier 85905A, S/N 6093-0551	
Comsonics Cybertec Examiner	
CONVERTER BOX SA 8511, S/N GF505BFDN	

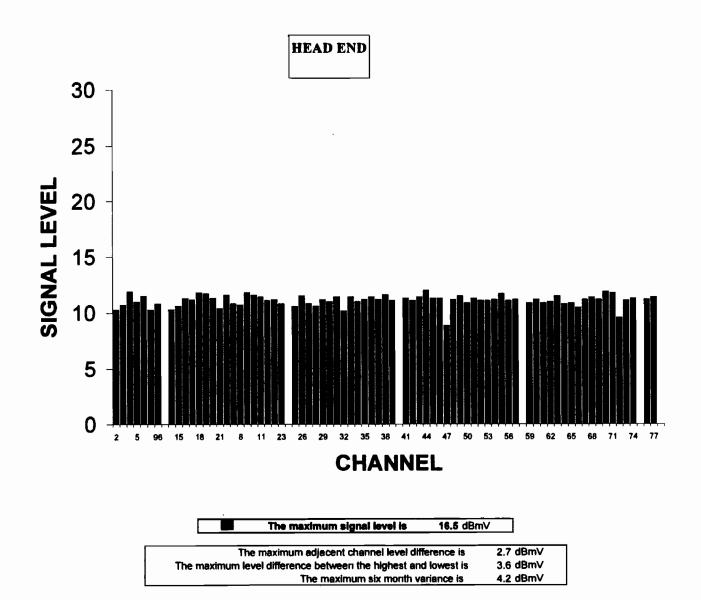
÷

	Date: 02/27	7/07	Time: 2:00	PM	Temp: 65					
		FREQ. RSP	HUM%	CSO	СТВ	C/N	4.5 DIFF			
	CH.	2dB Max	3% Max	51dB Min	51dB Min	43dB Min	5KHz Max			
	2	1.0	1.0	72.0	70.1	53.3	4.5000			
	95	1.6	0.7	72.1	66.8	52.8	4.5000			
	21	0.9	1.2	74.8	72.6	53.2	4.5001			
	8	1.3	0.9	74.9	66.8	53.6	4.5001			
	28	0.9	0.8	74.5	71.1	52.8	4.5000			
	32	0.9	0.9	70.5	68.6	53.1	4.5001			
	47	0.8	0.6	75.8	70.2	51.8	4.5000			
	56	0.4	0.7	72.3	63.7	51.5	4.5000			
	72	1.1	1,1	70.1	71.3	50.5	4.5000			
Minimum v	linimum values:		0.6	70.1	63.7	50.5	4.5000			
Maximum	values:	1.6	1.2	75.8	72.6	53.6	4.5001			



The ranges allowed by the FCC (76.605 (a)(4)(i,ii,iii)) are as follows:

- 4. Each level shall not vary by more than 8dB within any 6-month interval.
- i. Adjacent channel level to be within 3dB of each other.
- ii. Visual signal level on any other channel on a cable television system should be less than 10dB for systems of up to 300 MHz; for each additional 100 MHz, add 1dB to maximum difference level.
- iii. A maximum level such that signal degradation due to overload in the subscriber's Receiver or terminal does not occur.



								Head	End								
	(cor	nca	st				39	00 Wh	eeler Av	/e.							
	~								vel Vari							-	
	Equipm	ent Us	sed:	100' d		vetek S	SDA-50	00 Sigr		el Meter	S/N 43	4057(		Date:	02/14/0	7	
Run	1				2				3				4				
*	Time: 0	0:02:01			Time: 0	5:0 <u>1:13</u>			Time: 1	2:01:09			Time: 1 65	8:01:13			
Temp	65				65				65			0.144		A			
Chan	Vid	Aud Diff	Adjcnt Diff	6 Mth	Vid	Aud Diff	Adjent		Vid	Aud Diff	Adjcnt Diff	6 Mth Diff	Vid Lvl	Aud Diff	Adjcnt Diff	6 Min Diff	24 HR Vid Diff
	LVI		υπ	Diff	LVI		Diff	Diff	LVI		Um	and the local division of the local division	10.2	11.7	Din	1.6	
2	10.3 10.7	12.1 14.3	0.4	1.7 2.1	10.2 10.9	<u>11.9</u> 14.4	0.7	<u>1.6</u> 2.1	10.3 11.2	11.8 14.7	0.9	1 <u>.7</u> 2.5	10.2	11.7	0.7	1.6 2.1	0.1 0.5
4		14.3	1.2	3.3	11.4	14.7	0.7	2.1	11.2	14.8	0.9	2.5	12.1	15.5	1.2	3.8	0.5
5	11.9	15.2	-0.9	2.3	10.3	13.6	-1.1	<u>2.0</u> 1.7	10.5	13.8	-1.0	0.9	10.7	14.1	-1.4	1.7	0.7
6	<u>11.0</u> 11.5	14.5	0.5	<b>∠</b> .3 2.5	10.3	15.2	1.3	1.7	11.7	15.6	1.2	2.6	11.5	15.2	0.8	2.1	0.7
95	10.3	13.7	-1.2	2.5	10.5	13.9	-1.1	0.4	10.5	13.4	-1.2	0.2	10.5	13.9	-1.0	0.3	0.2
95 96	10.3	14,4	0.5	0.0	11.0	14.6	0.5	0.9	10.9	14.5	0.4	0.7	10.9	14.5	0.4	0.9	0.2
99*1	10.0	14.4	0.3	0.7	11.0	14.0	0.5	0.8	10.0	14.0	0.4	0.7	10.0	1.4.0	0.4	0.0	0.2
14	10.3	14.7	-0.5	1.8	10.4	14.8	-0.6	1.5	10.3	14.7	-0.6	1.2	10.3	14.7	-0.6	1.6	0.1
15	10.6	13.8	0.3	1.7	10.6	13.8	0.2	1.9	10.6	13.9	0.3	2.1	10.6	13.9	0.3	1.8	0.0
16	11.3	15.1	0.7	2.5	11.3	16.5	0.7	2.6	11.3	16.5	0.7	2.7	11.0	16.2	0.4	2.1	0.3
17	11.2	14.5	-0.1	2.6	11.1	14.4	-0.2	2.7	11.0	14.3	-0.3	2.3	11.4	14.7	0.4	2.7	0.4
18	11.8	15.2	0.6	3.1	11.6	15.1	0.5	3.0	11.6	15.0	0.6	2.9	11.8	15.3	0.4	3.4	0.2
19	11.7	15.0	-0.1	3.4	11.7	15.0	0.1	3.5	11.6	14.9	0.0	3.3	11.8	15.1	0.0	3.4	0.2
20	11.3	15.0	-0.4	2.5	11.4	15.2	-0.3	2.5	11.4	15.2	-0.2	2.7	11.4	15.2	-0.4	2.6	0.1
21	10.4	13.7	-0.9	2.4	10.6	13.9	-0.8	2.6	10.6	13.9	-0.8	2.5	10.3	13.6	-1.1	2.3	0.3
22	11.6	15.0	1.2	3.0	11.5	15.0	0.9	3.0	11.6	15.1	1.0	3.1	11.5	15.0	1.2	3.0	0.1
7	10.8	14.1	-0.8	2.0	11.2	14.5	-0.3	2.9	10.8	14.2	-0.8	2.2	10.9	14.3	-0.6	1.6	0.4
8	10.7	14.6	-0.1	2.1	10.8	14.7	-0.4	1.9	10.7	14.5	-0.1	2.1	10.7	14.6	-0.2	2.1	0.1
9	11.8	15.7	1.1	2.5	12.2	16.3	1.4	3.5	11.4	15.4	0.7	2.2	12.0	16.0	1.3	2.8	0.8
10	11.6	15.7	-0.2	2.4	11.6	15.6	-0.6	2.7	11.6	15.6	0.2	2.3	11.7	15.8	-0.3	2.7	0.1
11	11.4	15.3	-0.2	2.3	11.3	15.2	-0.3	2.3	11.4	15.3	-0.2	2.4	11.4	15.3	-0.3	2.4	0.1
12	11.1	15.0	-0.3	2.3	11.2	15.1	-0.1	2.4	1 <u>1.1</u>	15.0	-0.3	2.0	11.4	15.3	0.0	2.7	0.3
13	11.2	15.0	0.1	2.5	11.4	15.3	0.2	2.6	<u>11.4</u>	15.2	0.3	2.8	11.3	15.1	-0.1	2.8	0.2
23	10.8	15.2	-0.4	2.0	10.8	15.2	-0.6	1.9	10.6	15.0	-0.8	1.9	10.8	15.2	-0.5	2.0	0.2
24*1																	
25	10.6	15.3	-0.2	2.3	10.6	15.3	-0.2	2.2	10.7	15.4	0.1	2.5	1 <u>0.6</u>	15.3	-0.2	2.5	0.1
26	11.5	1 <u>5.3</u>	0.9	3.1	11.6	15.4	1.0	3.2	11.5	15.4	0.8	3.0	11.6	15.4	1.0	3.0	0.1
27	10.8	14.5	-0.7	2.3	10.9	14.5	-0.7	2.2	10.9	14.5	-0.6	2.5	11.0	14.6	-0.6	2.5	0.2
28	10.6	15.1	-0.2	1.9	10.7	15.2	-0.2	1.9	10.6	15.1	-0.3	1.8	10.5	15.0	-0.5	1.8	0.2
29	11.2	15.7	0.6	2.6	11.2	15.6	0.5	2.6	11.2	15.6	0.6	2.7	11.0	15.4	0.5	2.4	0.2
30	11.0	15.2	-0.2	2.4	11.2	15.4	0.0	2.4	11.1	15.3	-0.1	2.5	11.1	15.3	0.1	2.7	0.2
31	11.4	15.0	0.4	2.5	11.3	14.9	0.1	2.7	11.4	15.0	0.3	2.6	11.3	14.9	0.2	2.3	0.1
32	10.2	14.4	-1.2	1.7	10.3	14.5	-1.0	2.0	10.3	14.3	-1.1	1.7	10.3	14.3	-1.0	1.7	0.1

								Head	End								
	(cor	nca	st				39	00 Wh	eeler Av	ne.							
	-								vel Vari								
Dur	Equipr	nent <u>Us</u>	led:	100' đ		vetek 3	SDA-50	00 Sign		Meter	S/N 43	4057(		Date: (	2/14/07		
Run	Time: 0	0.02.04			2 Time: 0	2.04.42	-		3 Time: 1:	3.04.00			4 Time: 1				
Temp	65	0.02.01			65	5.01.13			65	2.01.08			65	0.01.13			
Chan	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjust	6 Mth	24 HR
33	11.4	15.5	1.2	2.6	11.3	15.4	1.0	2.3	11.4	15.5	1,1	2.4	11.5	15.5	1.2	2.8	0.2
34	11.0	15.3	-0.4	2.5	10.9	15.2	-0.4	2.4	10.9	15.2	-0.5	2.1	11.3	15.4	-0.2	2.8	0.4
35	11.2	15.1	0.2	2.6	11.3	15.1	0.4	2.4	11.2	15.0	0.3	2.6	11.2	15.0	-0.1	2.6	0.1
36	11.4	15.5	0.2	3.1	11.5	15.6	0.2	3.1	11.4	15.5	0.2	3.1	11.4	15.5	0.2	3.1	0.1
37	11.2	15.5	-0.2	2.6	11.3	15.5	-0.2	2.7	11.3	15.5	-0.1	2.6	11.3	15.5	-0.1	2.8	0.1
38	11.6	15.5	0.4	3.4	11.5	15.4	0.2	3.1	11.6	15.5	0.3	3.2	11.7	15.5	0.4	3.2	0.2
39	11.1	14.7	-0.5	2.7	11.1	14.7	-0.4	2.6	11.1	<u>14.6</u>	-0.5	2.5	11.2	14.8	-0.5	2 <u>.8</u>	0.1
40*1 41	11.3	48.4	0.2	2.8	11.2	48.0	0.0	2.6	11.5	45.0	0.1	2.4	11.0	48.0	0.4		
41	11.3	15.4 15.4	-0.2	2.0 2.5	11.3 11.2	15.3 15.5	<u>0.2</u> -0.1	2.6 2.5	<u>11.2</u> 11.1	15.2 15.4	0.1 -0.1	2.4 2.7	11.3 11.1	15.3	0.1	2.6	0.1
43	11.4	15.4	0.3	2.5	11.2	15.5	-0.1	2.5	11.3	15.4	-0.1	2.7	11.1	15.4 15.5	-0.2 0.2	2.6 2.6	0.1 0.2
44	12.0	15.6	0.6	3.1	11.9	15.5	0.7	3.4	11.9	15.5	0.6	3.2	12.0	15.6	0.2	3.1	0.2
45	11.3	15.7	-0.7	2.5	11.3	15.7	-0.6	2.6	11.2	15.6	-0.7	2.3	11.2	15.6	-0.8	2.6	0.1
46	11.3	15.2	0.0	2.5	11.3	15.1	0.0	2.4	11.2	15.2	0.0	2.3	11.3	15.2	0.1	2.8	0.1
47	8.9	14.8	-2.4	1.7	8.6	14.4	-2.7	1.5	9.0	14.8	-2.2	1.9	9.0	14.8	-2.3	2.1	0.4
48	11.2	15.2	2.3	2.6	11.2	15.2	2.6	2.8	11.3	15.3	2.3	2.9	11.3	15.3	2.3	2.9	0.1
49	11.5	15.2	0.3	3.1	11.5	15.2	0.3	3.3	11.6	15.3	0.3	3.1	11.5	15.2	0.2	3.2	0.1
50	10.9	15.2	-0.6	2.8	11.0	15.3	-0.5	2.8	11.0	15.3	-0.6	2.8	11.1	15.3	-0.4	3.0	0.2
51	11.3	15.1	0.4	2.9	11.7	15.5	0.7	3.6	11.6	15.3	0.6	3.7	11.3	15.0	0.2	3.3	0.4
52	11.1	14.9	-0.2	2.6	1 <u>1.2</u>	15.0	-0.5	2.5	1 <u>1.3</u>	15.2	-0.3	2.7	11.3	15.2	0.0	3.0	0.2
53	11.1	14.9	0.0	2.3	11.0	14.8	-0.2	2.4	<u>11.1</u>	14.9	-0.2	2.5	11.1	14.8	-0.2	2.6	0.1
54	11.2	15.0	0.1	2.7	11.1	14.9	0.1	2.7	11.2	15.0	0.1	2.9	11.1	14.8	0.0	2.8	0.1
55	11.7	15.3	0.5	3.8	11.7	15.2	0.6	3.6	11.7	15.2	0.5	3.6	11.6	15.1	0.5	3.5	0.1
56	11.1	14.9	-0.6	2.6	11.1	14.9	-0.6	2.8	11.2	14.9	-0.5	3.0	11.2	14.9	-0.4	2.9	0.1
57	11.2	14.9_	0.1	3.1	11.4	15.1	0.3	3.2	11.5	15.2	0.3	3.4	11.4	15.1	0.2	3.3	0.3
<u>58*1</u> 59	10.9	14.8	-0.3	3.1	10.9	14.7	-0.5	3.4	11.0	14.8	-0.5	3.3	10.8	14.6	-0.6	3.1	0.2
<u> </u>	10.9	14.0	0.3	3.1	10.9	14.7	-0.5	3. <del>4</del> 3.2	11.0	15.2	-0.5	3.2	11.1	15.3	-0.8	3.4	0.2
61	10.9	15.5	-0.3	3.1	11.0	15.2	0.0	3.7	11.0	15.8	0.0	3.3	10.9	15.7	-0.2	3.2	0.2
62	11.0	15.4	0.1	3.1	11.0	15.4	0.0	3.1	10.9	15.3	-0.1	3.2	10.9	15.4	0.0	3.2	3.0
63	11.5	15.5	0.5	3.3	11.4	15.4	0.4	3.3	11.5	15.5	0.6	3.2	11.3	15.3	0.4	3.2	0.2
64	10.8	15.4	-0.7	3.0	10.8	15.3	-0.6	3.0	10.8	15.3	-0.7	3.0	10.8	15.3	-0.5	3.2	0.0
65	10.9	15.7	0.1	3.1	10.9	15.7	0.1	3.2	10.9	15.7	0.1	3.1	10.7	15.5	-0.1	2.8	0.2
66	10.5	15.8	-0.4	2.9	10.4	15.6	-0.5	2.8	10.4	15.6	-0.5	2.9	10.5	15.7	-0.2	3.1	0.1
67	11.2	15.0	0.7	2.8	11.3	15.0	0.9	3.1	11.4	15.1	1.0	3.2	11.3	15.1	0.8	3.2	0.2
68	11.4	15.0	0.2	3.1	11.4	15.0	0.1	3.1	11.5	15.1	0.1	3.2	11.5	15.0	0.2	3.1	0.1
69	11.2	16.5	-0.2	2.8	11.3	16.5	<u>-0.1</u>	3.1	11.2	16.4	-0.3	2.9	11.2	16.4	-0.3	2.9	0.1
70	11.9	15.5	0.7	3.3	<u>11.8</u>	15.3	0.5	3.3	<u>11.9</u>	15.4	0.7	3.5	11.9	15.4	0.7	3.5	0.1
71	11.8	14.8	-0.1	4.0	12.0	15.0	0.2	4.2	11.8	14.7	-0.1	4.0	11.8	14.8	-0.1	4.1	0.2
72	9.6	14.7	-2.2	3.5	9.7	<u>14.7</u>	-2.3	3.4	9.8	14.8	-2.0	3.5	9.6	14.6	-2.2	3.4	0.2

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Head End
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(comcast

3900 Wheeler Ave. 24 Hour Level Variation

uipment Used:	100' drop,	Wavetek SDA-	5000 Signal	Level Meter 8	S/N
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	Equipr	nent Us	sed:	100' d	rop, Wa	vetek			nal Leve		r S/N 43	4057(		Date: (	02/14/0	7	
Run	1				2				3				4				
	Time: 0	0:02:01			Time: 0	6:01:13			Time: 1	2:01:09			Time: 1	8:01:13			
Temp	65	_		_	65				65				65				
Chan	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint	6 Mth	Vid	Aud	Adjent	6 Mth	Vid	Aud	Adjoint	6 Mth	24 HR
73	11.1	14.6	1.5	3.1	11.1	14.6	1.4	3.1	11.1	14.6	1.3	3.0	11.1	14.6	1.5	3.0	0.0
74	11.3	15.0	0.2	3.3	11.3	15.0	0.2	3.3	11.3	15.0	0.2	3.4	11.3	15.0	0.2	3.4	0.0
75*1																	
76	11.2	15.0	-0.1	3.2	11.3	15.1	0.0	3.3	11.3	15.1	0.0	3.4	11.3	15.1	0.0	3.4	0.1
77	11.4	15.5	0.2	3.6	11.5	15.6	0.2	3.5	11.5	15.6	0.2	3.6	11.3	15.3	0.0	3.3	0.2
78*1																_	
Min Value	8.9	12.1	-2.4	0.0	8.6	11.9	-2.7	0.4	9.0	11.8	-2.2	0.2	9.0	11.7	-2.3	0.3	0.0
Max Value	12.0	16.5	2.3	4.0	12.2	16.5	2.6	4.2	11.9	16.5	2.3	4.0	12.1	16.4	2.3	4.1	3.0

Notes:

\*1 Channel removed from Analog line-up

### Subscriber Systems

### Model 8511 Set-Top Terminal







19961

Compact and simple to operate, the Model 8511 Set-Top Terminal offers Scientific-Atlanta quality and reliability at an economical price.

#### DESCRIPTION

Popular for its compact size, the Model 8511 Set-Top Terminal has two large keys on the front that allow subscribers to quickly and easily change channels and turn the unit on or off. With the two-speed channel increment/decrement feature, subscribers can alter channel changing speed by pressing either key for more than two seconds.

#### Reliable, High-Quality Technology

Subscribers will benefit from the settop terminal's ultra-reliable, highquality design. The infrared remote control provides convenient direct channel entry and favorite channel recall. Quality Automatic Frequency Control (AFC) ensures improved tuning stability and frequency accuracy. The product is covered by Scientific-Atlanta's three-year limited warranty and 99% reliability guarantee.

#### FEATURES

- 550 MHz bandwidth
- AFC technology for tuning stability
- Infrared remote control capability with favorite channel memory (remote optional)
- · Compact size takes up less room on TV set
- Two keys control channel changes and on/off settings
- Two-speed channel increment/decrement
- Switched AC outlet
- EIA channel lineup available (switch selectable between Standard and HRC)
- Meets FCC Part 15H Requirements

### Model 8511 Set-Top Terminal

#### **SPECIFICATIONS**

Environmental Temperature 0°C to 45°C **Relative humidity** 5% to 95% Electrical Input bandwidth 54 MHz to 550 MHz Number of channels 82 Output channel 3 or 4, set at factory Channel frequency response +2 dB Gain 0 dB, min 5 dB, typical Output level 15.5 dBmV, max Noise figure 12 dB, typical **Return loss** Input 7 dB, min on tuned channel (54 MHz to 440 MHz) 5 dB, min on tuned channel (440 MHz to 550 MHz) Output 11 dB, min Isolation input/output 60 dB Spurious response Input -37 dBmV (up to 550 MHz) Output -57 dBc (in channel)

Frequency accuracy +100 kHz AC input range 115 V AC +10% Power consumption 7 W, typical Surge protection AC: Spark gaps and transformer isolation RF: Inductor shunt to ground Distortion at 15 dBmV; 80 channel load Flat input Second order: -57 dB Cross Modulator: -57 dB Composite triple beat: -57 dB Input level -7 dBmV to +20 dBmV Mechanicai Dimensions 7 in. L x 4.75 in. W x 2 in. H Weight 1.75 lbs Keyboard type Two keys (increment and decrement, front access) Display type 2-Digit LED, 0.57 in. H x 0.40 in. W (per digit)

#### ORDER INFORMATION

- Model 8511-300 Set-Top Terminal with channel 3 output
- Model 8511-400 Set-Top Terminal with channel 4 output
- Model 8550-175 Remote Control

Specifications and product availability subject to change without notice.

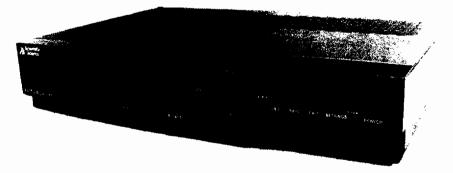


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## Explorer<sup>®</sup> 2100 Digital Home Communications Terminal



#### Description

The Scientific-Atlanta Explorer<sup>®</sup> 2100 Digital Home Communications Terminal (DHCT) provides support for digital services and traditional, non-scrambled analog services delivered through a hybrid fiber/coax (HFC) network. The Explorer DHCT features a 32-bit, 130 MHz RISC microprocessor; an Internet Protocol-based, real-time reverse path DAVIC transmitter; and an out-of-band control channel that can support interactive or session-based services.

The Explorer 2100 DHCT contains 16 MB of total memory that can support services such as video-on-demand, email, or Internet access, as well as other future applications. The Explorer 2100 DHCT also supports both digital broadcast services and applications. Finally, the Explorer 2100 DHCT includes industry standards support (OpenCable, CableLabs/SCTE, DAVIC), which make these terminals ready for future applications and preserves its longevity.

#### Features

**Reverse Path Data Transmitter** 

MPEG 2 MP@ML Digital Video Decompression

Dolby<sup>®</sup> AC3<sup>®</sup> and Musicam Digital Audio PowerKEY<sup>®</sup> Conditional Access System

PowerTV® Operating System with HTML Client Engine

- Allows instantaneous, IP-based, "real-time" two-way communication between the DHCT and the headend
- Enables MSO to offer two-way services such as Internet browsing, video-on-demand, and e-mail
- Transmits at up to 1.544 Mbps
- Allows transport and compression of audio and video
- 4 MB of DRAM dedicated to MPEG decompression and graphics
- Video resolution up to 720 x 480 pixels
- Supports these digital audio standards
- Secures digital services using an encryption algorithm, from RSA, that mathematically matches pairs of keys
- Provides Application Programming Interfaces (APIs) that enable client applications to utilize the resources managed by the operating system for delivering broadcast and interactive services
- Upgradeable using a network download

## **Explorer 2100 Digital Home Communications Terminal**

Features, continued

**Enhanced Graphics Engine** 

Powerful 32-bit RISC Processor

64 and 256 ITU Annex B QAM Support

16 MB Total Memory

Analog and Digital Service Tuner

Both Internal Security Microprocessor and Smartcard Slot

Macrovision Copy Protection

Universal Serial Bus (USB) Interface

**BTSC/SAP Decoder** 

S/PDIF Digital Audio Interface Recessed Cavity for Custom Logo

- Displays up to 65,000 colors simultaneously
- Enables high-resolution graphics (640 x 480 pixels) while simultaneously scaling MPEG 2 video
- Includes 130 MHz clock speed to perform tasks and applications quickly
- Support of open standard for QAM delivery and demodulation
- Includes 8 MB CPU DRAM
- Includes 4 MB Graphics DRAM
- Includes 4 MB Flash EPROM
- Allows both non-scrambled analog and MPEG 2 digital channels to be tuned and displayed
- Provides an internal method for conditional access as well as an external ability to upgrade the security, if required
- Can support the capability for the MSO to restrict unauthorized subscribers from copying digital services such as pay-per-view and video-on-demand
- Supports interconnection with home consumer devices such as printers
- · Provides USB interface on the front panel
- Provides stereo sound on analog channels using the baseband left and right audio outputs
- Supports interconnection with Dolby Digital™ Receivers
- Allows cable operators to brand the DHCT

Specifications, features and product availability are subject to change without notice.



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Part Number 738942 Rev. B February 2001



### Explorer<sup>®</sup> 8300<sup>™</sup> Series Digital Video Recorders Offer Standard, HD, and Multi-Room<sup>™</sup> Capabilities

#### Description

The Explorer<sup>®</sup> 8300<sup>™</sup> DVR provides subscribers with the latest enhancements in cable television viewing.

The Explorer 8300HD<sup>™</sup> DVR provides HD subscribers with the latest HD DVR features.

The Explorer 8300 Multi-Room™ DVR provides subscribers access to recorded programs in multiple rooms throughout the home on standard Explorer set-tops.



#### 8300 DVR Family Features

The Explorer 8300 DVR is a standard definition, two-tuner digital video recorder (DVR) that provides the DVR services your subscribers want:

- Record one program while watching another
- Watch two programs at the same time, using the picture-in-picture (PIP) capability of the Explorer 8300 DVR
- Record programs without a VCR
- Supports expanded storage through an optional external Serial ATA (SATA) hard drive
- Easily access video/audio inputs and the USB port from the front panel, and access the Coaxial Digital Audio Output connector on the back panel

#### 8300HD DVR Additional Features

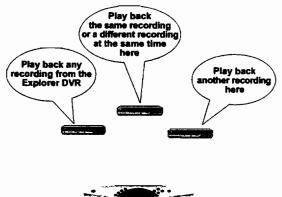
The Explorer 8300HD DVR provides the same features as the standard definition 8300 DVR and more:

- Connect to the set-top through the YPbPr, HDMI™, or optional 1394 connectors to an HDTV
- Stretch and zoom the video picture to maximize its viewable area on the HDTV display
- Select the resolution (scan rate) best suited for the HDTV (480i, 480p, 720p, or 1080i)
- Utilize the optical Digital Audio Output connector to easily connect to higher-end audio equipment

#### 8300 Multi-Room DVR Additional Features

The Explorer 8300MR<sup>™</sup> DVR delivers all the convenience and control of a two-tuner DVR—to as many as four televisions using existing wiring in the home and digital set-tops you may already have:

- Access the list of recorded shows stored on the Explorer 8300 MR-DVR server and its optional SATA hard drive
- Playback, pause, rewind, and/or fast-forward any recording at any time on set-tops in other rooms



Explorer DVR



### Specifications

8300 and 8300MR-DVR Specificat	ions
Base SD Model Features	Description
DVR with 80 GB Hard Drive	The 80 GB model allows up to 50 hours* of SD programs to be recorded and stored using DVR functions
(Larger hard drives are available. Contact your North American marketing manager for more	Gives subscribers complete control over watching, pausing, rewinding, replaying, and fast forwarding live programs using the remote control
information.)	*The total program hours that can be stored depends upon the format and data rate of the programming source.
DAVIC Reverse Path Data Transmitter	Allows IP-based, real-time, two-way communication between the Explorer 8300 Series DVR and the cable service provider's headend
	Supports interactive services such as xOD (anything-On-Demand), VOD (video-on-demand), and SVOD (subscription VOD)
Optional DOCSIS <sup>®</sup> 1.0 cable modem	The internal DOCSIS 1.0 cable modem implements the Baseline Privacy Interface and DOCSIS SNMP MIBs. The upstream transmitter can send QPSK and 16-QAM bursts to any headend CMTS that implements DOCSIS 1.0 or DOCSIS 1.1 specifications.
MPEG-2 MP@ML Standard Definition Digital Video Decompression	Allows decompression and presentation of audio and video Delivers up to 720 x 480i video resolution
Dual Analog and Digital Service Tuners (True Picture-In-Picture)	Allows both analog and MPEG-2 digital channels to be tuned and displayed Allows two programs to be displayed simultaneously using the PIP function
Dual Analog Encoders	Allows two analog SD programs to be recorded and displayed simultaneously
Dolby <sup>®</sup> Digital Audio and MPEG-1 Audio Support	Supports digital audio decoding of two-channel MPEG-1 Layers I & II and Dolby Digital with up to 5.1 channels of multi-channel surround sound. Also downmixes multi-channel Dolby Digital programs to surround-compatible left/right outputs.
PowerKEY <sup>®</sup> Conditional Access System	Provides digital security using an RSA encryption algorithm that mathematically matches pairs of keys
	Encrypts all recordings on an internal hard disk drive or on an optionally attached external SATA hard disk drive
	Allows upgrades using a network download
PowerTV® Operating System with HTML Client Engine	Offers a stable operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications
Enhanced Graphics Engine	Displays up to 65,000 colors simultaneously Enables high-resolution 640 x 480 IPG graphics while simultaneously scaling MPEG-2 video
Powerful 32-bit RISC Processors	Features two 250-MHz (500 MIPs total) processors to perform tasks and launch applications quickly



Base SD Model Features, continued	Description	
Over 96 MB Total Memory	Flash: Applications DRAM: Media DRAM: MPEG encoding: NVM:	512 KB 64 MB 16 MB 16 MB of DRAM 8 KB
64 and 256 ITU J.83 Annex B QAM Support	Supports open stand	ards for QAM delivery and demodulation
Both Internal Security Microprocessor and Smart Card Slot	Provides hardware-a upgrade the security,	ssisted conditional access options with capability to if ever needed
Macrovision <sup>®</sup> Copy Protection Support (licensing fee required to activate)	protection software, o	le service providers to add another layer of copy called Macrovision, that restricts unauthorized king analog copies of digital transmissions, such as
BTSC/SAP Decoder	Provides stereo soun right audio outputs	d on analog channels through the baseband left and
BTSC Encoder	Provides stereo soun	d on the RF coaxial output
Coaxial Digital Audio Output	Supports coaxial inte the encoding of analo	rconnection with surround sound receivers (includes og audio)
Baseband Audio/Video Outputs	Offers a baseband au	idio/video connection to a VCR or TV
RF Cable Out	Offers a composite a	udio/video connection to a VCR or TV
Front Composite Audio/Video Inputs (will require a software enhancement download when available)	Supports interconnec camcorders, or digita	tion to home consumer devices, such as VCRs, cameras for video and audio pass-through to the TV
Provision for Name Branding	Allows you to brand to name and logo	he Explorer 8300 series DVR with your company
External SATA Connector	External Serial ATA ( connection to an Exte space for recorded pr	SATA) connector provides a high-bandwidth emal SATA hard disk drive for expanded storage ograms
Optional Dual IEEE 1394 Digital Outputs with Digital Transmission Content Protection (DTCP) (will require a software enhancement download when available)		394 outputs with DTCP will provide a 400-Mbps ital display devices (HDTVs)
Universal Serial Bus (USB) Port (will require a software enhancement download when available)	Front panel USB port devices such as USB	for easy-to-access connection with home consumer keyboards



### 8300HD and 8300HD Multi-Room DVR Specifications

Additional HD Model Features	Description
DVR with a 80 GB or 160 GB Hard Drive (Larger hard drives are available. Contact your North American marketing manager for more information.)	The 160 GB model allows up to 90 hours* of SD programs or up to 20 hours* of HD programs to be recorded and stored using DVR functions Gives subscribers complete control over watching, pausing, rewinding, replaying, and fast forwarding live programs using the remote control *The total program hours that can be stored depends upon the format and data rate of the programming source.
Analog Component HDTV Outputs	Provides YPbPr outputs for quick and easy connection to most HDTV sets
YPbPr and Audio Left/Right Cable Kit	Provides connection from the HD analog video and audio outputs to the HDTV set
Optical Digital Audio Output	Supports optical interconnection with surround sound receivers (includes the encoding of analog audio)
MPEG-2 MP@HL High Definition Digital Video Decompression	Allows decompression and presentation of audio and video Delivers the following video resolutions: 1920 x 1080i 720 x 480p 1280 x 720p 720 x 480i
HDMI 1.0 Digital Audio/Video Output with HDCP Copy Protection	The High Definition Multimedia Interface (HDMI) provides uncompressed digital video and audio quality in a simple, user-friendly connector. HDMI, combined with HDCP (High-Bandwidth Digital Content Protection) provides the optimal, secure connection to an HDTV set that supports the HDMI with HDCP interface. HDMI is backward compatible with the DVI 1.0 with HDCP video interfaces on earlier versions of HDTVs.
Over 112 MB Total Memory	Flash:       512 KB         Applications DRAM:       64 MB         Media DRAM:       32 MB         MPEG encoding:       16 MB of DRAM         NVM:       8 KB
Optional Application Memory	Applications DRAM: 128MB
8300 Series Dimensions Dimensions (all 8300 models)	Description
Product Dimensions (WxDxH)	15.60 in. x 11.20 in. x 3.25 in. (39.7 cm x 28.5 cm x 8.3 cm)
Product Weight	8.3 lbs (3.8 kg)
Carton Dimensions (WxDxH)	18.00 in. x 14.00 in. x 6.12 in. (45.8 cm x 35.6 cm x 15.6 cm)
Weight Including Packaging	11.6 lbs (5.3 kg)
8300 Series Placement and Tempe Placement	rature Range
Placement Requirement	Locate the 8300 with at least two inches of open space above and on each side to provide adequate cooling.
Temperature Range	
Room Temperature Range (Operating)	The 8300 should be installed in an environment where the air temperature surrounding the unit is between 40°F to 105°F (5C to 40C).



#### **Ordering Information**

Contact your Sales Representative for product availability in your area.

Part Number	Description	Availability
4003980	Explorer 8300 DVR with 80GB Hard Drive	Now
4007951	Explorer 8300 DVR with 80GB Hard Drive and Dual IEEE 1394 Ports	Now
4006190	Explorer 8300HD DVR with 160GB Hard Drive and HDMI	Discontinued*
4006781	Explorer 8300HD DVR with 160GB Hard Drive, HDMI, and Dual IEEE 1394 Ports	Now
4007317	Explorer 8300 Multi-Room DVR with 80GB Hard Drive	Now
4007950	Explorer 8300 Multi-Room DVR with 80GB Hard Drive and Dual IEEE 1394 Ports	Now
4003610	Explorer 8300HD Multi-Room DVR with 160GB Hard Drive and HDMI	Discontinued*
4006775	Explorer 8300HD Multi-Room DVR with 160GB Hard Drive, HDMI, and Dual IEEE 1394 Ports	Now
4008560	Explorer 8300 with 80GB Hard Drive and DOCSIS	Now
4008561	Explorer 8300HD with 160GB Hard Drive, HDMI, and DOCSIS	Discontinued*
4009287	Explorer 8300HD with 160GB Hard Drive, HDMI, DOCSIS, and Dual IEEE 1394 Ports	Now
4010581	Explorer 8300HD Multi-Room DVR with 160GB Hard Drive, HDMI, DOCSIS, and Dual IEEE-1394 Ports	Fourth Quarter, 2005
4011815	Explorer 8300HD DVR with 160GB Hard Drive, HDMI, DOCSIS, 128MB Application Memory, and Dual IEEE-1394 Ports	Fourth Quarter, 2005
4011816	Explorer 8300HD Multi-Room DVR with 160GB Hard Drive, HDMI, DOCSIS, 128MB Application Memory, and Dual IEEE-1394 Ports	Fourth Quarter, 2005

\*As required by US Code of Federal Regulations, Title 47, §76.640 (www.gpoaccess.gov), these models are not produced or available after June 30, 2005.

Accessories

Part Number	Description
4006369	AllTouch <sup>®</sup> 8550 Universal Remote Control
1002048	HDMI to HDMI Cable
1002056	HDMI to DVI Cable (for use in connecting the HDMI port to older, DVI equipped HDTVs)
4004725	4-Port Splitter Isolation Module (SIM) for MR-DVR installations. For more information, refer to datasheet part number 7001717
4008261	Passive Isolation Module (IM) for MR-DVR installations. For more information, refer to datasheet part number 7007588
4011635	Inline Single Port Isolation Module for MR-DVR installations
749790	RGB adaptor and cables (for adapting Explorer HD set-tops to HDTV sets that are equipped with only RGB-type inputs) For more information refer to datasheet part number 752184.
4000633	Scientific-Atlanta Resident Application (SARA) DVR Software Installation CD (only order one CD for each headend)
Software	
Part Number	Description
4000633	Scientific-Atlanta Resident Application (SARA) DVR Software Installation CD (only order one CD for each headend)
752351	DVR Software License (line item on Explorer 8300 DVR Purchase Order)



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Part Number 7004920 Rev D October 2005

### Explorer<sup>®</sup> 8000 <sup>™</sup> Home Entertainment Server





#### Description

The Explorer<sup>®</sup> 8000<sup>™</sup> Home Entertainment Server with Digital Video Recording (DVR) and Picture-in-Picture (PIP) functionality gives consumers more control, convenience, and choice in their TV viewing experience while giving cable service providers the capability to increase revenue streams, profitability, and reduce subscriber chum.

#### **Consumer Features**

**Subscriber Networks** 

- Control live TV If the phone rings during your favorite live show, just press Pause on the AllTouch<sup>●</sup> 8400<sup>™</sup> remote control. The show will stay paused for up to one hour. Press Play to resume the show whenever you are ready.
- Use Instant Replay whenever you want --- If you missed the winning score, just press Instant Replay to see what you missed.
- Broaden your choices Now you can record one program and change channels to watch another program at the same time. In fact, you can
  record two programs airing simultaneously. And while recording the two programs, you can select a third, pre-recorded program to watch at the
  same time.
- Pre-set the 8000 to record all episodes of a TV program for you Simply select the program from the Interactive Program Guide (IPG) and select the Record All Episodes option.
- Create your own personalized video library of favorite TV shows Store up to 50\* hours of programs and play them back at any time.
- Display two programs on the screen simultaneously Using the PIP remote control button, view two live programs, or one live and one recorded program simultaneously, regardless of the make or brand of your TV.

#### **Cable Operator Benefits**

- Build additional monthly revenue streams with new DVR, video-on-demand (VOD), and PIP services.
- Use VOD and DVR as complimentary services to offer more compelling content than satellite offerings.
- Reduce churn by providing more of the services that consumers really want.
- Derive greater profitability with the 8000 platform, which is scalable to support future applications development and continued growth.
- Reduce installation and service costs with the 8000's consumer-friendly, self-install, Plug and Play operation.

\* The total program hours storable depends upon the format of the programming source.



### Hardware Specifications

Features	Benefits
DVR with 80-GB Hard Drive	Allows up to 50* hours of video programs to be recorded and stored using DVR functions
	Gives subscribers complete control over watching, pausing, rewinding, replaying, and fast forwarding live programs using the remote control and 80-GB hard drive
DAVIC Reverse Path Data Transmitter	Allows IP-based, real-time, two-way communication between the Explorer 8000 Home Entertainment Server and the headend
	Supports interactive services such as <i>anything</i> -on-demand (xOD), VOD, and subscription VOD (SVOD)
MPEG-2 MP@ML Standard	Allows decompression and presentation of audio and video
Definition Digital Video Decompression	Delivers 640 x 480 video resolution
Dual Analog and Digital Service	Allows both analog and MPEG-2 digital channels to be tuned and displayed
Tuners (True Picture-In-Picture)	Allows two programs to be displayed simultaneously using the picture-in-picture function
Dual MPEG Encoder	Allows up to two different analog programs to be digitally encoded onto the hard disk drive simultaneously
AC-3 <sup>®</sup> Digital Audio and MPEG-1 Audio Support	Supports leading digital audio standards
Dual Analog Encoders	Allows two analog SD programs to be recorded and displayed simultaneously
Composite Audio/Video Outputs	Connects to video and the left and right audio inputs of a TV (standard definition)
PowerKEY <sup>®</sup> Conditional Access System	Provides digital security using an RSA encryption algorithm that mathematically matches pairs of keys
-	Encrypts all recordings on an internal 80-GB hard disk drive
PowerTV® Operating System with HTML Client Engine	Offers a more stable operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications
-	Allows upgrades using a network download
Enhanced Graphics Engine	Displays up to 65,000 colors simultaneously
	Enables high-resolution 640 x 480 IPG graphics while simultaneously scaling MPEG-2 video
Powerful 32-bit RISC Processors	Features two 164 MHz (328 MIPs total) processors to perform tasks and applications quickly
Over 48 MB Total Memory	Flash: 8 MB Applications DRAM: 16 MB Media DRAM: 8 MB MPEG encoding: 16 MB of DRAM
	NVM: 8 KB
64 and 256 ITU J.83 Annex B QAM Support	Supports open standards for QAM delivery and demodulation
Both Internal Security Microprocessor and Smart Card Slot	Provide hardware-assisted conditional access options with capability to upgrade the security, if ever needed
Macrovision <sup>®</sup> Copy Protection Support (licensing fee required to activate)	Activation allows cable operators to add another layer of copy protection software, called Macrovision, that restricts unauthorized subscribers from making analog copies of digital transmissions, such as VOD and SVOD
BTSC/SAP Decoder	Provides stereo sound on analog channels through the baseband left and right audio outputs
S/PDIF Digital Audio Output	Supports interconnection with surround sound receivers
Provision for Name Branding	Allows you to brand the Explorer 8000 Home Entertainment Server with your company name and logo

\* The total program hours storable depends upon the format of the programming source.



### Hardware Specifications – CONTINUED

Features	Benefits
Universal Serial Bus (USB) Ports (Optional back panel port will	Provides one standard, front panel USB port for easy-to-access connection with home consumer devices such as USB keyboards
require optional software enhancement by downloading software when available)	Provides one optional back panel USB port for connecting additional USB devices
Second Composite Audio/Video Outputs (will require software enhancement by downloading software when available)	Offers a second connection, labeled "OUT 2 (VCR)," for connection to a VCR
Composite Audio/Video Inputs (will require software enhancement by downloading software when available)	Supports interconnection to home consumer devices, such as VCRs, camcorders, or digital cameras for video pass-through to the TV
Optional Dual IEEE 1394 Digital Outputs with 5C Copy Protection (will require software enhancement by downloading software when available)	Provides optional dual IEEE 1394 outputs with 5C copy protection that provide a 400- Mbps interconnection each to home consumer devices such as digital televisions (see part number 736360 in Ordering Information)

#### **Ordering Information**

Product	Part Number
Explorer 8000 Home Entertainment Server	736360
DVR Software License (line item on Explorer 8000 Purchase Order)	752351
Explorer 8000 Home Entertainment Server without IEEE 1394 Ports	4004570
AllTouch 8400 Remote Control	745684 Rev B
Scientific-Atlanta Resident Application (SARA) DVR Software Installation CD	4000633



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Scientific-Atlanta, Inc. 1-800-722-2009 or 770-236-6900 www.scientificatlanta.com

Part Number 745538 Rev E August 2003



### Explorer<sup>®</sup> 8000HD™ Home Entertainment Server

#### Description

Scientific-Atlanta's Explorer® 8000HD<sup>™</sup> Home Entertainment Server will combine three compelling video services into one integrated set-top: high-definition (HD) programming, digital video recorder (DVR), and HD on-demand content. This combination will allow cable service providers to grow their subscriber base, increase customer satisfaction, and boost existing revenue streams. Consumers will get a rich home entertainment experience with eye-popping HD picture clarity; the movie theater experience of surround sound; personalized recording with DVR control and convenience; and access to HD on-demand content. Please see your Scientific-Atlanta sales representative regarding product availability.

#### **Cable Service Provider Benefits**

- Build additional monthly revenue streams with new HD-DVR, video-on-demand (VOD), and picture-in-picture (PIP) services.
- Use VOD and DVR as complimentary services to offer more compelling content than satellite offerings.
- Reduce churn by providing more of the services that consumers really want.
- Derive greater profitability with the Explorer platform, which is scalable to support future applications development and continued growth.
- Reduce installation and service costs with the Explorer 8000HD server's consumer-friendly, self-install, Plug and Play operation.

#### **Consumer Benefits**

- Benefit from Dual-Tuner Functionality You will be able to record one program while you are watching another program simultaneously. You will be able to record two programs at the same time that you play back a third.
- Control live TV If the phone rings during your favorite live show, just press the Pause button on the AliTouch® 8400<sup>™</sup> Remote Control. The show will stay paused for up to one hour. Press Play to resume the show whenever you are ready.
- Use Instant Replay whenever you want If you missed the winning score, just press the Instant Replay button to see what you missed.









The Explorer 8000HD Entertainment Server will make it easy to maximize the screen image for non-HD channels. For a widescreen HDTV set, click "stretch" or "zoom" from the Quick Settings menu on the Explorer 8000HD server.

### **Explorer 8000HD Home Entertainment Server**



#### Consumer Benefits, Continued

- Pre-set the Explorer 8000HD server to record all episodes of a TV program for you Simply select the
  program in the Interactive Program Guide and select the "Record All Episodes" option.
- Create your own personalized video library of favorite TV shows Play back your shows at any time.
- Display two programs on-screen simultaneously Using the PIP remote control button, view two live
  programs, or one live and one recorded program simultaneously, regardless of the brand of your TV.

#### Features

The 8000HD will offer the following features:

- Decodes all 18 ATSC digital video formats, including the 6 high-definition (HD) digital formats for HDTV.
- Outputs video to the HDTV display in four resolutions: 480i, 480P, 720P, or 1080i. These resolutions, or scan rates, allow consumers to select the scan rate best suited for their HDTV set.
- Decodes all standard-definition digital formats and all analog video services as well.
- Allows consumers to stretch and zoom the video picture to maximize its viewable area on the HDTV display.

To meet the demands of existing and future network configurations, the 8000HD will offer power, capacity, and compatibility. The Explorer 8000HD Home Entertainment Server will have a reverse-path DAVIC transmitter capable of 1.544 Mbps for two-way communications capability to support such applications as the Interactive Program Guide and VOD. The 40 MB of application and program memory, along with dual 166 MHz RISC microprocessors, will manage multiple program tasks and applications with speed and power.

Description		
DVR with 80 GB or 160 GB Hard Drive	The 160 GB model will allow up to 20 hours* of HD programs or up to 90 hours* of SD programs to be recorded and stored using DVR functions (*The total program hours that can be stored depends upon the format and data rate of the programming source.)	
	Will give subscribers complete control over watching, pausing, rewinding, replaying, and fast forwarding live HD programs using the remote control	
Analog Component HDTV Outputs	Will provide YPbPr outputs for quick and easy connection to most HDTV sets	
DAVIC Reverse Path Data Transmitter	Will allow IP-based, real-time, two-way communication between the Explorer 8000HD Home Entertainment Server and the cable service provider's headend	
	Will support interactive services such as xOD ( <i>anything-On-Demand</i> ), VOD, and subscription VOD (SVOD)	
MPEG-2 MP@ML Standard Definition	Will allow decompression and presentation of audio and video	
Digital Video Decompression	Will deliver 640 x 480 video resolution	
Dual Analog and Digital Service Tuners	Will allow both analog and MPEG-2 digital channels to be tuned and displayed	
(True Picture-In-Picture)	Will allow two programs to be displayed simultaneously using the PIP function	
Dual Analog Encoders	Will allow two analog SD programs to be recorded and displayed simultaneously	
Dolby Digital <sup>®</sup> Audio and MPEG-1 Audio Support	Will support leading digital audio standards	
PowerKEY®Conditional Access System	Will provide digital security using an RSA encryption algorithm that mathematically matches pairs of keys	
	Will encrypt all recordings on an internal hard disk drive	
	Will allow upgrades using a network download	

#### **Specifications**

## Explorer 8000HD Home Entertainment Server



#### Specifications, Continued

Feature	Description		
PowerTV <sup>®</sup> Operating System with HTML Client Engine	Will offer a stable operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications		
Enhanced Graphics Engine	Will display up to 65,000 colors simultaneously		
	Will enable high-resolution 640 x 480 IPG graphics while simultaneously scaling MPEG-2 video		
Powerful 32-bit RISC Processors	Will feature two 166-MHz (332 MIPs total) processors to perform tasks and launch applications quickly		
Over 64 MB Total Memory	Flash: 8 MB		
	Applications DRAM: 32 MB		
	Media DRAM: 32 MB		
	MPEG encoding: 16 MB of DRAM		
	NVM: 8 KB		
64 and 256 ITU J.83 Annex B QAM Support	Will support open standards for QAM delivery and demodulation		
Both Internal Security Microprocessor and Smart Card Slot	Will provide hardware-assisted conditional access options with capability to upgrade the security, if ever needed		
Macrovision <sup>®</sup> Copy Protection Support (licensing fee required to activate)	Activation will allow cable service providers to add another layer of copy protection software, called Macrovision, that restricts unauthorized subscribers from making analog copies of digital transmissions, such as VOD and SVOD		
BTSC/SAP Decoder	Will provide stereo sound on analog channels through the baseband left and right audio outputs		
S/PDIF Coaxial Digital Audio Output	Will support coaxial interconnection with surround sound receivers and encodes analog audio		
S/PDIF Optical Digital Audio Output	Will support optical interconnection with surround sound receivers and encodes analog audio		
YPbPr and Audio Left/Right Cable Kit	Will provide connection from the HD analog video and audio outputs to the HDTV set		
Provision for Name Branding	Will allow you to brand the Explorer 8000HD Home Entertainment Server with your company name and logo		
Composite Audio/Video Inputs (will require a software enhancement download when available)	Will support interconnection to home consumer devices, such as VCRs, camcorders, or digital cameras for video and audio pass-through to the TV		
VCR Composite Audio/Video Outputs (will require a software enhancement download when available)	Will offer a composite audio/video connection to a VCR for archiving content from the hard disk drive		
Optional DVI 1.0 Digital HDTV Output with HDCP Copy Protection (will require	Optional DVI 1.0 port with HDCP (High-Bandwidth Digital Content Protection) will support digital connection to an HDTV set supporting the DVI interface		
a software enhancement download when available)	HDCP will provide a copy protection interface between the 8000HD and the HDTV set		
Optional Dual IEEE 1394 Digital Outputs with 5C Copy Protection (will require a software enhancement download when available)	Optional dual IEEE 1394 outputs with 5C copy protection will provide a 400-Mbps interconnection each to home consumer devices such as digital televisions (see part number 749970 in <b>Ordering Information</b> )		
Universal Serial Bus (USB) Ports (will require a software enhancement	One standard, front panel USB port for easy-to-access connection with home consumer devices such as USB keyboards		
download when available)	One optional back panel USB port for connecting additional USB devices		



#### **Ordering Information**

Contact your Sales Representative for product availability in your area.

Part Number Description		
4004564	Explorer 8000HD Home Entertainment Server with 160GB Hard Drive and DVI	
749970	Explorer 8000HD Home Entertainment Server with 160GB Hard Drive, DVI, and Dual IEEE 1394 Ports	
4005536	Explorer 8000HD Home Entertainment Server with 80GB Hard Drive and DVI	
4005534	Explorer 8000HD Home Entertainment Server with 80GB Hard Drive, DVI, and Dual IEEE 1394 Ports	
4004878	DVR Software License (line item on Explorer 8000HD Purchase Order)	
745684	AllTouch 8400 Remote Control	
4005400	Scientific-Atlanta Resident Application (SARA) DVR Software Installation CD (only order one CD for each headend)	



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Part Number 4004400 Rev C November 2003

## Explorer<sup>®</sup> 3250HD™ High-Definition Interactive Set-Top

#### Description

Scientific-Atlanta's Explorer<sup>®</sup> 3250HD<sup>™</sup> High-Definition Interactive Set-Top merges high-definition video capability and broadband digital video services to deliver a broad range of entertainment, information, and communications services.

The 3250HD decodes all 18 ATSC digital video formats, including the 6 high-definition (HD) digital formats for HDTV. All standard-definition digital formats and all analog video services are decoded as well. This comprehensive level of decoding capability in one set-top box enables cable service providers to quickly scale HDTV video services for both analog and digital consumers.

The 3250HD can output video to the HDTV display in four resolutions: 480i, 480p, 720p, or 1080i. These resolutions, or scan rates, allow consumers to select the scan rate best suited for their HDTV set. Consumers can stretch and zoom the video picture to maximize its viewable area on the HDTV display.

For added connectivity, the 3250HD offers optional loop-through that provides a set of component HDTV inputs, a composite video input, and both analog audio and optical digital audio inputs. A consumer with limited inputs on their HDTV can use the loop-through connectivity feature on the 3250HD to connect additional electronic devices.

(continued on page 2)

#### Features

- 166 MIPS Processor
- Integrated DAVIC Cable Modem
- 8 MB Flash Memory, or 16 MB available as an option
- 16 MB Applications DRAM, or 32 MB available as an option
- 16 MB Media DRAM
- 4 KB NVM
- Analog Component HDTV Outputs
- Composite Audio/Video Outputs
- S-Video Output
- Digital Audio Outputs (RCA and Optical)
- Front Panel USB Port
- Ability to Process All Analog and Digital Services
- IR Port for VCR Commander™ Service





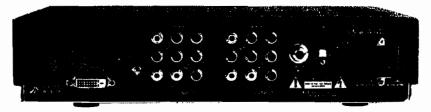
### Explorer 3250HD High-Definition Interactive Set-Top

#### Description, continued

To meet the demands of existing and future network configurations, the 3250HD offers power, capacity, and compatibility. The integrated internal DAVIC cable modem allows the 3250HD to communicate instantly with the cable headend to promote a broad range of interactive entertainment, information, and communications services. Over 40 MB of application and program memory, along with the 166 MHz RISC microprocessor, manage multiple program tasks and applications with speed and power. The USB port offers fast interconnectivity to consumer peripherals.

#### **Optional Features**

- 16 MB Flash Memory
- 32 MB Applications DRAM
- DVI 1.0 Digital HDTV Output
- IEEE 1394 Digital Outputs
- Loop-Through Connections for Component HDTV, Composite Video, and Analog and Digital Audio
- IR Blaster Cable
- IR Extender Cable
- RF Bypass
- Universal AllTouch<sup>®</sup> Remote Control: AT8400, AT8450, \*AT8550, AT2400, or AT2300



3250HD rear panel showing optional loop-through connections



3250HD rear panel showing optional IEEE 1394 digital outputs

Taping an HD broadcast to an analog VCR is seamless with the 3250HD. The set-top simultaneously displays the HD image and downconverts it to SD (standard definition) through the NTSC outputs.

The optional VCR Commander Service integrates the interactive TV program guide with the VCR so that consumers simply point-and-click to setup and record programs.









The 3250HD makes it easy to maximize the screen image for non-HD channels. For a widescreen HDTV set, simply click "stretch" and then "zoom" from the Quick Settings menu on the 3250HD set-top.



To maximize the screen image for a standard 4:3 HDTV set, simply change the scan rate to 480i using the Quick Settings menu on the 3250HD set-top.

## Explorer 3250HD High-Definition Interactive Set-Top



### Specifications

Feature	Benefits		
Analog Component HDTV Outputs	Provides YPbPr outputs for quick and easy connection to most HDTV sets		
Dual Audio Outputs with Composite Video Output	Allows simultaneous connection to the audio inputs on the HDTV as well as the audio and video inputs on a VCR		
DAVIC Reverse Path Data Transmitter	Allows IP-based, real-time two-way communication between the 3250HD and the headend Enables cable service provider to offer two-way services such as Internet browsing, video-on-demand (VOD), subscription VOD (SVOD), e-mail, and real-time chat		
MPEG-2 MP@HL Digital Video	Allows decompression and presentation of audio and video		
Decompression	Delivers video resolutions up to 1920 x 1080		
Dolby <sup>®</sup> Digital Audio and MPEG-1 Audio Support	Supports leading digital audio standards		
PowerKEY <sup>®</sup> Conditional Access System	Provides digital security using an RSA encryption algorithm that mathematically matches pairs of keys		
PowerTV <sup>®</sup> Operating System with HTML Client Engine	Offers stable operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications		
	Allows upgrades using a network download		
Enhanced Graphics Engine	Displays up to 65,000 colors simultaneously		
	Enables high-resolution 640 x 480 IPG graphics while simultaneously scaling MPEG-2 video		
Automatic Scaling of MPEG-2 Video for IPG Window	Scales MPEG-2 video for optimal viewing in the IPG window regardless of whether the subscriber is watching an HD or SD channel on either a widescreen or standard 4:3 TV		
Powerful 32-bit RISC Processors	Features a 166 MHz (166 MIPs) processor to perform tasks and applications quickly		
Over 40 MB Memory	8 MB Flash, or 16 MB available as an option 16 MB Applications DRAM, or 32 MB available as an option 16 MB Media DRAM 4 KB NVM		
64 and 256 ITU J.83 Annex B QAM Support	Supports open standards for QAM delivery and demodulation		
Analog and Digital Service Tuner	Allows both analog and MPEG-2 digital channels to be tuned and displayed		
DAVIC Compliant Integrated Cable Modern	Provides a high-speed data forward path to the 3250HD		
Both Internal Security Microprocessor and Smart Card Slot	Provide hardware-assisted conditional access options with capability to upgrade the security, if ever needed		
Macrovision <sup>®</sup> Copy Protection Support	Activation allows cable operators to add another layer of copy protection software, called Macrovision, that restricts subscribers from copying protected transmissions such as VOD and SVOD to the analog composite outputs		

(continued on page 4)

## Explorer 3250HD High-Definition Interactive Set-Top



Specifications, continued

Feature	Benefits		
Universal Serial Bus (USB) Interface	Front panel USB port allows easy interconnection with home consumer devices such as USB keyboards		
BTSC/SAP Decoder	Provides stereo sound on analog channels through the baseband left and right outputs		
S/PDIF Digital Audio Interface	Supports interconnection with surround sound receivers using coaxial and optical type connectors		
Integrated VCR Commander Service	Automates the recording of selected video programs; requires IR Blaster Cable		
Provision for Name Branding	Allows you to brand the 3250HD with your company name and logo		
Optional DVI 1.0 Digital HDTV Output with Support for HDCP	Optional DVI 1.0 port with HDCP (High-Bandwidth Digital Content Protection) supports digital connection to an HDTV set supporting the DVI interface		
	HDCP provides a copy protection interface between the 3250HD and HDTV set		
Optional Dual IEEE 1394 Digital Outputs with DTCP Copy Protection	Optional dual IEEE 1394 outputs with DTCP (Digital Transmission Content Protection) provide a 400-Mbps digital interconnection to a 1394-equipped HDTV		
	The 1394 ports provide a copy protection interface between the 3250HD and the connected consumer device		
Optional Analog Component HDTV Inputs	Provides YPbPr inputs, composite video input, and digital and analog audio loop-through for quick and easy connection to a DVD player		
Optional RF Bypass	Allows the video signal to internally bypass the 3250HD to an SD input on the HDTV set		
Optional RGB Adapter	Converts the video from the YPbPr output into an RGB format with horizontal and vertical sync for HDTVs requiring the RGB input signal		

#### **Ordering Information**

Contact your Sales Representative for product availability in your area.

Part Number	Description
4000768	Explorer 3250HD High-Definition Set-Top (8 MB Flash / 16 MB DRAM Memory) with Optional DVI 1.0 Digital HDTV Output
4001332	Explorer 3250HD High-Definition Set-Top (8 MB Flash / 16 MB DRAM Memory) with Optional DVI 1.0 Digital HDTV and Optional IEEE 1394 Digital Outputs
4004367	Explorer 3250HD High-Definition Set-Top (16 MB Flash / 32 MB DRAM Memory) with DVI 1.0 Digital HDTV Output
4005726	Explorer 3250HD High-Definition Set-Top (16 MB Flash / 32 MB DRAM Memory) with DVI 1.0 Digital HDTV and Optional IEEE 1394 Digital Outputs
4006584	Explorer 3250HD High-Definition Set-Top (16 MB Flash / 32 MB DRAM Memory) with DVI 1.0 Digital HDTV Output and Analog Component Video and Audio Loop-Through Inputs

(continued on page 5)



Ordering Information, continued

Description	Product Photo	Part Number
Optional IR Blaster Cable (8 ft)	,O;	735994
Optional IR Extender Cable		1001807 (12 ft) 4006725 (25 ft)
Optional RF Bypass	1. 1. 1-	544345
Optional RGB Adapter, sold in packages of five (cables sold separately)		749790
RGB Adapter Cable with RCA-to- RCA Connectors (8 ft)	Q	749976
RGB Adapter Cable with RCA-to- VGA Connectors (8 ft)	Q	749978
RGB Adapter Cable with RCA-to- BNC Connectors (8 ft)	Q	749977
Spare YPbPr and Audio Left/Right Cable Kit (10 ft)		1000944



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Part Number 4005304 Rev B August 2004



## Explorer<sup>®</sup> 3100HD High Definition DHCT

#### Description

The Explorer<sup>®</sup> 3100HD Digital Home Communications Terminal (DHCT) combines highdefinition (HD) video capability with both analog and digital broadcast services including interactive videoon-demand (VOD), subscription VOD (SVOD), Web browsing, email and chat services.

This Explorer DHCT, scheduled for release in early 2002, decodes all 18 ATSC high-definition digital formats for HDTV presentation, as well as standard definition digital and analog video services, providing a compre-hensive and scalable solution to demand for high-quality HDTV video services.

The Explorer 3100HD DHCT upconverts all video services to 1080i resolution and passes the signal through its component outputs to the HDTV. The HD YPbPr component outputs make it simple to connect to almost any HDTV. Also, the Explorer 3100HD DHCT is fully backward compatible with existing Scientific-Atlanta digital set-tops and headends, and meets major industry standards including CableLabs/SCTE, ATSC, and DAVIC.

With its high-speed DAVIC cable modem, the Explorer 3100HD DHCT communicates instantly with the cable headend to promote real-time, interactive services such VOD, SVOD, Internet browsing, and email. A powerful 32-bit, 130 MHz RISC microprocessor speeds up applications and processing tasks for instantaneous results.

#### Features

HD Component Video Connectors Composite Audio/Video Outputs

Reverse Path DAVIC Data Transmitter

Compact Size MPEG-2 MP@HL Digital Video Decompression



Explorer 3100HD DHCT offers a comprehensive and scalable solution to demand for HDTV.

#### **Ordering & Availability**

Part Number:	• 749300
Software:	• OS 3.1 and SARA 1.21 (or 1.15)
Standard	Single tuner
Features:	• 130 MIPS
	<ul> <li>16MB applications DRAM</li> </ul>
	<ul> <li>Front panel USB</li> </ul>
	<ul> <li>Integrated VCR Commander™</li> </ul>
	<ul> <li>18 ATSC HDTV formats</li> </ul>
	<ul> <li>Supports all analog, standard-, and high-definition services</li> </ul>
Optional	Expanded memory
Features:	RF bypass
	Web browser, email, real-time chat, and interactive games
Available:	Scheduled for release early 2002
<ul> <li>magnetic processor</li> </ul>	start a manager services of

- Allows simple connection to most HDTVs
- Allows connection to TV or VCR for recording standard definition video
- Allows instantaneous, IP-based, "real-time" twoway communication between the DHCT and the headend
- Enables MSO to offer two-way services such as VOD, SVOD, Web browsing, email, chat
- Transmits up to 1.544 Mbps
- 14" X 9.5" X 2.75" (LXWXH)
- Allows transport and decompression of audio and video
- Delivers video resolution up to 1920 x 1080i

Dolby<sup>®</sup> AC3<sup>®</sup> and Musicam Digital Audio PowerKEY<sup>®</sup> Conditional Access System

PowerTV<sup>®</sup> Operating System with HTML Client Engine

Enhanced Graphics Engine

Powerful 32-bit RISC Processor

**Over 40 MBytes Memory** 

64 and 256 ITU Annex B QAM Support

Analog and Digital Service Tuner

Both Internal Security Microprocessor and Smart Card Slot

Macrovision<sup>®</sup> Copy Protection

Universal Serial Bus (USB) Interface

BTSC/SAP Decoder

S/PDIF Digital Audio Interface

Integrated VCR Commander™

**Custom Branding Insert** 

**Optional RF Bypass** 

- Supports leading digital audio standards
- Secures digital services via an RSA encryption algorithm that mathematically matches pairs of keys
- Provides Application Programming Interfaces (APIs) that enable client applications to use the resources managed by the operating system for delivering broadcast and interactive services
- Allows upgrades using a network download
- Displays up to 65,000 colors simultaneously
- Enables high resolution 640 x 480 graphics
- Simultaneously scales standard definition MPEG-2 video
- Features 130 MHz (130 MIPs) processor speed to perform tasks and applications quickly
- 4 MBytes Flash
- 16 MBytes Applications DRAM
- 4 MBytes Media DRAM
- 16 Mbytes of HDTV Decoder memory
- 2 KBytes Non-volatile machine memory
- Supports open standards for QAM delivery and demodulation
- Allows both analog and MPEG-2 digital channels to be tuned and displayed
- Provides hardware-assisted conditional access options with capability to upgrade the security, if ever needed
- Allows the MSO to restrict unauthorized subscribers from copying digital services, such as pay-per-view and VOD
- Front panel access allows easy interconnection with other digital devices such as digital cameras
- Provides stereo sound on analog channels via the composite baseband left and right outputs
- Supports interconnection with Dolby Digital<sup>™</sup> Receivers
- Automates the recording of selected video programs; requires optional IR Blaster Cable
- Allows you to brand the DHCT with your service or company identifier
- Allows the video signal to bypass through the DHCT directly to the TV

Specifications, features, and product availability are subject to change without notice.

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PowerKEY, Explorer, Scientific-Atlanta, and the Scientific-Atlanta logo are registered trademarks of Scientific-Atlanta, Inc.



Scientific-Attanta, Inc. 1-800-722-2009 or 770-236-6900 www.sciatl.com

Part Number 745880, Rev. C October 2001



## Explorer<sup>®</sup> 3100 Digital Home Communications Terminal



#### Description

The Scientific-Atlanta Explorer<sup>®</sup> 3100 Digital Home Communications Terminal (DHCT) provides support for digital services, traditional non-scrambled analog services, and optional scrambled analog services delivered through a hybrid fiber/coax (HFC) network. The Explorer DHCT features a 32-bit, 130 MHz RISC microprocessor; an Internet Protocol-based, real-time reverse path DAVIC transmitter; and an out-of-band control channel that can support interactive or session-based services.

The Explorer 3100 DHCT contains 24 MB of total memory that can support services such as video-on-demand, e-mail, or Internet access, as well as other future applications. In addition to expanded memory, the Explorer 3100 DHCT includes the option for an integrated Analog Descrambler and an option for two IEEE 1394 Firewire ports with 5C copy protection. The Explorer 3100 DHCT also supports both digital broadcast services and applications. Finally, the Explorer 3100 DHCT includes industry standards support (OpenCable, CableLabs/SCTE, DAVIC), which makes this terminal ready for future applications and preserves its longevity.

#### Features

**Reverse Path Data Transmitter** 

MPEG 2 MP@ML Digital Video Decompression

Doiby<sup>®</sup> AC3<sup>®</sup> and Musicam Digital Audio PowerKEY<sup>®</sup> Conditional Access System

PowerTV<sup>®</sup> Operating System with HTML Client Engine

- Allows instantaneous, IP-based, "real-time" two-way communication between the DHCT and the headend
- Enables MSO to offer two-way services such as Internet browsing, video-on-demand, and e-mail
- Transmits at up to 1.544 Mbps
- · Allows transport and compression of audio and video
- Includes 4 MB of DRAM dedicated to MPEG decompression and graphics
- · Provides video resolution up to 720 x 480 pixels
- Supports these digital audio standards
- Secures digital services using an encryption algorithm, from RSA, that mathematically matches pairs of keys
- Provides Application Programming Interfaces (APIs) that enable client applications to utilize the resources managed by the operating system for delivering broadcast and interactive services
- · Allows upgrades using a network download

## Explorer 3100 Digital Home Communications Terminal

Features, continued

**Enhanced Graphics Engine** 

Powerful 32-bit RISC Processor

24 MB Total Memory

64 and 256 ITU Annex B QAM Support Analog and Digital Service Tuner

Both Internal Security Microprocessor and Smartcard Slot

**Macrovision Copy Protection** 

Universal Serial Bus (USB) Interface

**BTSC/SAP Decoder** 

S/PDIF Digital Audio Interface **Recessed Cavity for Custom Logo** Optional Ethernet 10BaseT Interface

**Optional Analog Descrambling** 

**Optional Dual IEEE 1394 Interface** 

- Displays up to 65,000 colors simultaneously
- Enables high-resolution graphics (640 x 480 pixels) while simultaneously scaling MPEG 2 video
- Includes 130 MHz clock speed to perform tasks and applications quickly
- Includes 16 MB CPU DRAM
- Includes 4 MB Graphics DRAM
- Includes 4 MB Flash EPROM
- Supports standard for QAM delivery and demodulation
- Allows both non-scrambled analog and MPEG 2 digital channels to be tuned and displayed
- Provides an internal method for conditional access as well as an external ability to upgrade the security, if reauired
- Supports the capability for the MSO to restrict unauthorized subscribers from copying digital services such as pay-per-view and video-on-demand
- Supports interconnection with home consumer devices such as printers.
- Provides USB interface on the front panel
- Provides stereo sound on analog channels using the baseband left and right audio outputs
- Supports interconnection with Dolby Digital<sup>™</sup> Receivers
- Allows cable operators to brand the DHCT
- Supports interconnection to other Ethernet-controlled devices such as personal computers
- · Supports the descrambling and audio demasking of scrambled analog channels allowing the Explorer DHCT to coexist in a network with analog terminals
- Supports Scientific-Atlanta, Zenith, and selected Motorola analog scrambling technologies
- Includes 2 ports with 5C copy protection

Specifications, features and product availability are subject to change without notice.



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1-800-722-2009 or 770-903-6900 www.scientificatlanta.com

Part Number 740313 Rev. B February 2001



## Explorer<sup>®</sup> 2200 Digital Interactive Set-top

#### Description

With the release of the Explorer<sup>®</sup> 2200 Digital Interactive Set-top, Scientific-Atlanta offers a faster RISC<sup>(1)</sup> processor to optimize interactivity on the cable operator's digital network.

The Explorer 2200 Set-top features a 32-bit, 166 MHz processor and a reverse-path DAVIC transmitter capable of sending and receiving data at speeds up to 1.544 Mbps. With its fast response time, the Explorer 2200 Set-top provides subscribers with instant, real-time feedback to remote control "clicks" or requests for on-demand content.



Overall size of the Explorer 2200 Set-top is 30 percent smaller than its predecessor, resulting in reduced shipping and warehousing costs for the cable operator.

Total available memory is 16 MB, which provides support for video-on-demand (VOD), subscription VOD (SVOD), e-mail, chat services, Internet access, and other applications such as games.

The Explorer 2200 Set-top also complies with OpenCable, CableLabs/SCTE, and DAVIC standards to ensure broad-based applications support and scalability.

(1) The Reduced Instruction Set Computer (RISC) processor takes advantage of simple instruction sets and uniform encoding to improve performance.

#### Features

Powerful 166 MHz, 32-bit RISC Processor	Delivers fast system response time
16 MB Total Memory	<ul> <li>8 MB CPU DRAM</li> <li>4 MB Graphics DRAM</li> <li>4 MB Flash EPROM</li> </ul>
Reverse Path DAVIC Data Transmitter	<ul> <li>Allows instantaneous, IP-based, real-time two-way communication between the Explorer 2200 Set-top and the headend</li> <li>Drives interactive services such as Internet browsing, VOD, SVOD, e-mail, and chat</li> <li>Transmits and receives up to 1.544 Mbps</li> </ul>
Universal Serial Bus (USB) Interface	<ul> <li>Offers quick and easy connectivity to digital peripherals such as Web printers and cameras</li> </ul>
Small Footprint	<ul> <li>30% reduction in overall size compared with predecessor, the Explorer 2100 DHCT</li> </ul>

## Explorer<sup>®</sup> 2200 Digital Interactive Set-top

Dolby<sup>®</sup> AC-3<sup>®</sup> and Musicam Digital Audio Support

**PowerKEY® Conditional Access System** 

PowerTV<sup>®</sup> Operating System with HTML Client Engine

Enhanced Graphics Engine

#### 64 and 256 ITU Annex B QAM Support

**Analog and Digital Service Tuner** 

Both Internal Security Microprocessor and Smart Card Slot

Macrovision<sup>®</sup> Copy Protection Support (licensing not Included)

#### MPEG-2 MP@ML Digital Video Decompression

**BTSC/SAP Decoder** 

S/PDIF Digital Audio Interface

**Name Branding** 

- Provides capability to distribute content in these high-quality audio formats
- Secures digital services using an RSA encryption
   algorithm that mathematically matches pairs of keys
- Offers extensive operating system and open Application Programming Interfaces (APIs) to support native applications and third-party middleware applications
- Allows upgrades using a network download
- Displays up to 65,000 colors simultaneously
- Enables high-resolution graphics (640 x 480 pixels) while simultaneously scaling MPEG-2 video
- Supports standards-based QAM delivery and demodulation
- Allows both non-scrambled analog and MPEG-2
   digital channels to be tuned and displayed
- Provides hardware-assisted conditional access options with capability to upgrade the security, if needed
- Activation allows cable operators to add another layer of copy protection software—Macrovision—that restricts unauthorized subscribers from copying digital transmissions such as VOD and SVOD
- Allows high-volume transport and decompression of audio and video
- Powered by 4 MB of onboard dedicated DRAM to ensure fast decompression of MPEG and graphics
- Provides video resolution up to 720 x 480 pixels
- Enables stereo sound on analog channels using the baseband left and right audio outputs
- Supports Dolby Digital<sup>™</sup> technology contained in interconnected audio receivers
- A section of the Explorer 2200 Set-top faceplate is reserved for prominent display of the cable operator's name and/or logotype

Ordering & Availability		
Standard Features: • Digital tuner, high-quality	Part Number: • 745622	
<ul> <li>Analog tuner, high-quality</li> <li>166 MIPS</li> </ul>	Optional Features:	
<ul> <li>8 MB applications DRAM</li> <li>Front panel USB port</li> <li>Interactive navigation buttons - complete set on front</li> </ul>	Available:	
panel	Scheduled for release March 2002	

Specifications, features, and product availability are subject to change without notice.



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Scientific-Atlanta, Inc. 1-800-722-2009 or 770-236-6900 www.scientificatlanta.com

Part Number 752062 Rev A March 2002



## ESTIMATED SPECIFICATIONS

Model: XBR10-10/66P23/26DF

Prep. By C.L.

6/8/0711: 16:37 <u>AM6/8/0</u> 711:15:58 <u>AM6/8/0</u> 711:15:57 AM

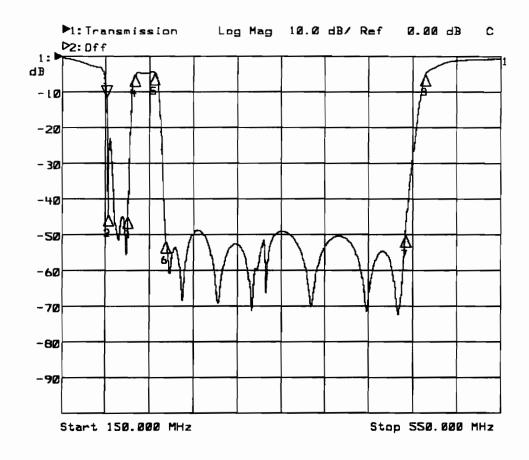
Date:

Deleted: 12/2/05

Response: REV 2

Minimum operating frequency: 1 GHz

Marker #	Freq. Desc.	Freq. (MHz)	Nominal Loss (dB)	
1	9 aud	191.75	12	
2	10 vid	193.25	45	
3	13 vid	211.25	45	
4	23 vid	217.25	5.0	
5	26 vid	235.25	5.0	
6	27 aud	245.75	53	
7	64 vid	463.25	50	
8	67 vid	481.25	5.0	



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Page 1 of 1

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## **TRAP SPECIFICATIONS**

Model: CBR-2/78

Prep. By T.H. Date:

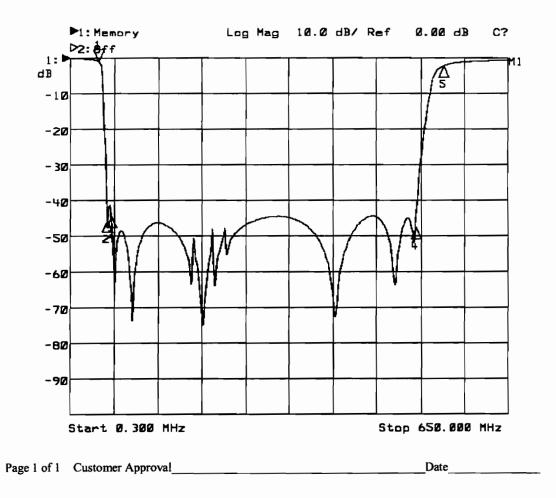
<u>6/8/0711:</u> <u>18:08</u> <u>AM6/8/0</u> <u>711:17:40</u> <u>AM6/8/0</u> <u>711:17:39</u> <u>AM</u>

Deleted: 11/29/04

Passband insertion loss: 1 dB

Minimum operating frequency: 1 GHz

Marker #	Freq. Desc.	Freq. (MHz)	Typical Loss (dB)	Limits (dB)
1		42.00	1.0	2.0 max.
2	2 vid.	55.25	46	30 min.
3	3 vid.	61.25	45	40 min.
4	72 vid.	511.25	48	40 min.
5	79 vid.	553.25	2.2	4.0 max.
6				
7				
8				





# **TRAP SPECIFICATIONS**

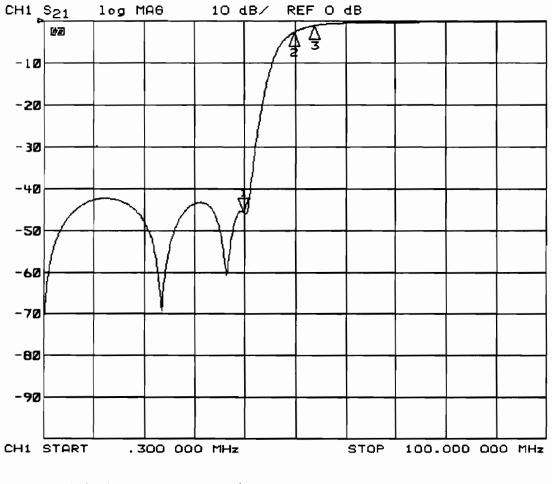
Model: SHP3-50

Prep. By B.O. Date: 08/01/06

**Response: Actual** 

Minimum operating frequency: 1 GHz

Marker #	Freq. Desc.	Freq. Mhz	Typ. Loss(dB)	Limits(dB)
1		40	45	40 min.
2		50	2.8	3.5 max.
3		54	1.2	1.5 max.



Customer Approval

	APPROVED BY OMB 3060-0433
FEDERAL COMMUNICATIONS COMMIS	
WASHINGTON, D.C. 20554	
BASIC SIGNAL LEAKAGE PERFORMANCE	REPORT
FORM 320	
Approval Date: Aug 11, 2006 Filing Year: 2006 Confirmatio	n Number: CB18088961
SECTION I – GENERAL INFORMATIO	ON
(1) Cable System Owner: COMCAST OF VIRGINIA INC	
Phone Number: (215) 320-7454	
Address: 1500 MARKET STREET	
PHILADELPIA	PA 19102
(City)	(State) (Zip)
(2) Community Served: ALEXANDRIA	
(3) Community Unit No.: VA0220	
(4) Physical System Id: 004923	
SECTION II – LOCAL SYSTEM INFORMA	ATION
(1) Person(a) Personaible for the Persont	
(1) Person(s) Responsible for the Report: Name: Smith Sheila	
(Last) (First) A	(M)
Phone Number: (215) 320-7454	
Address: 1500 MARKET ST.	
PHILADELPHIA	$\frac{PA}{(State)} = \frac{19102}{(7\pi)}$
(City)	(State) (Zip)
(2) Are aeronautical frequencies (108-137 or 225-400 MHz)	
used by this cable television system? Yes	
(3) TEST RESULTS: CLI: 10LogIoo: 10LogI3000:	
Airspace:	
SECTION III – LEAKAGE PEFORMANCE C	RITERIA
For operators conducting measurements on a geographical area that contains more	e than one Community Unit (e.g.,
headends that serve more than one Community Unit) fill in the measurement info	rmation below. NOTE: The
submission of the accompanying exhibits, either B or C, may be incorporated by a	reference to another Community Unit
filing that had undergone the same measurement tests as this community Unit. The	-
identified by its Community Unit Code Number in response to Question (2) or (4)	) below.
(1) GROUND-BASED MEASUREMENTS: (if used)	
(a) Person(s) Responsible for the test: Name:	
(Last) (First)	(M)
Phone Number: ( ) -	
(b) Miles of plant tested and % of total plant tested: m;	%

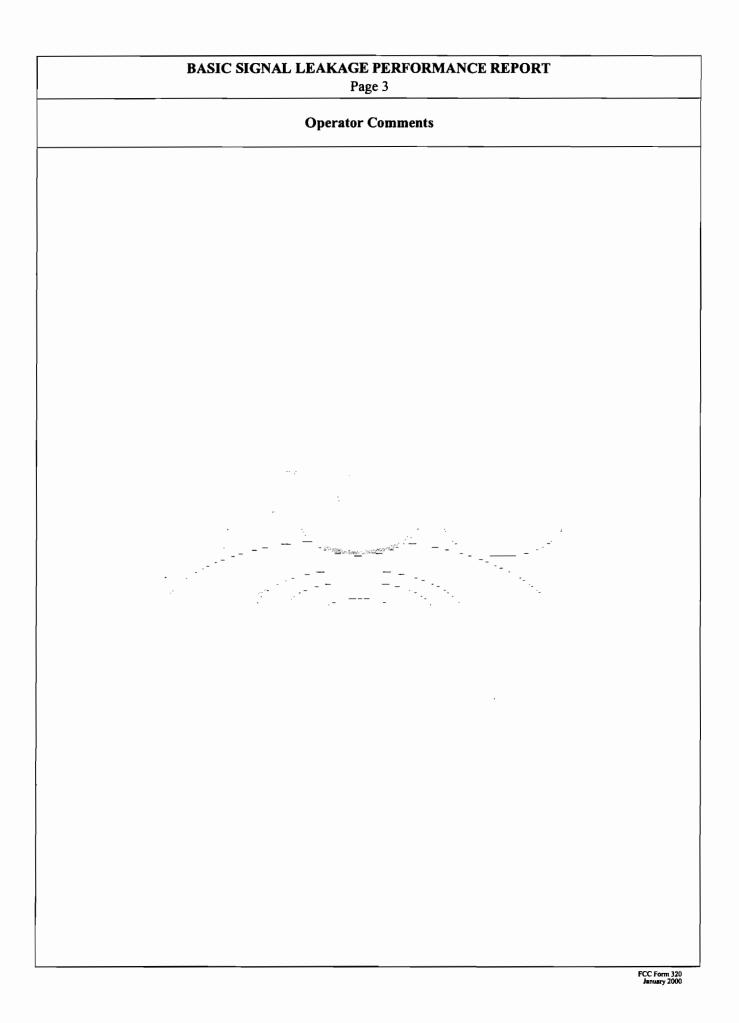
Page 2 SECTION III LEAKAGE PERFORMANCE CRITERIA (Continued)						
(c) Time period of the test:	From:	То:				
	(mm/dd/yy)	(mm/dd/yy)				
(d) Equipment Used:				_(Mhz		
	(Make)	(Model)	(Test Fi	requency		
(e) Attach as <b>Exhibit B</b> , the Cl all leaks >= 50 uV/m, and s	how their repaired dates, i		ed. Identify in this	s Exhibi		
) AIRSPACE MEASUREMENTS	. ,					
(a) Person(s)/Company Respon Name:		tach Engingering	122.22			
Name: (Last)		tech Engineering		75 (Mhz) requency		
(Last) Phone Number: (904) 720-	· ·	u)	(M) (Test Fi	requency		
(b) Time period of the test:	From: 08/01/2006	To: 08/01/2006				
(0) P	(mm/dd/yy)	(mm/dd/yy)				
	a detailed description of the leaks detected during the tes, if any). vsis:	he area covered by these a se airspace measurements ph of the results and indic	airspace measurem that were subseque cate the value	ently		
<ul><li>(i) If analog recordings, i of the smoothed out period</li><li>(ii) If digitized recordings</li></ul>	nclude in Exhibit C a gra; eak-valuesuV/r	n.		S		

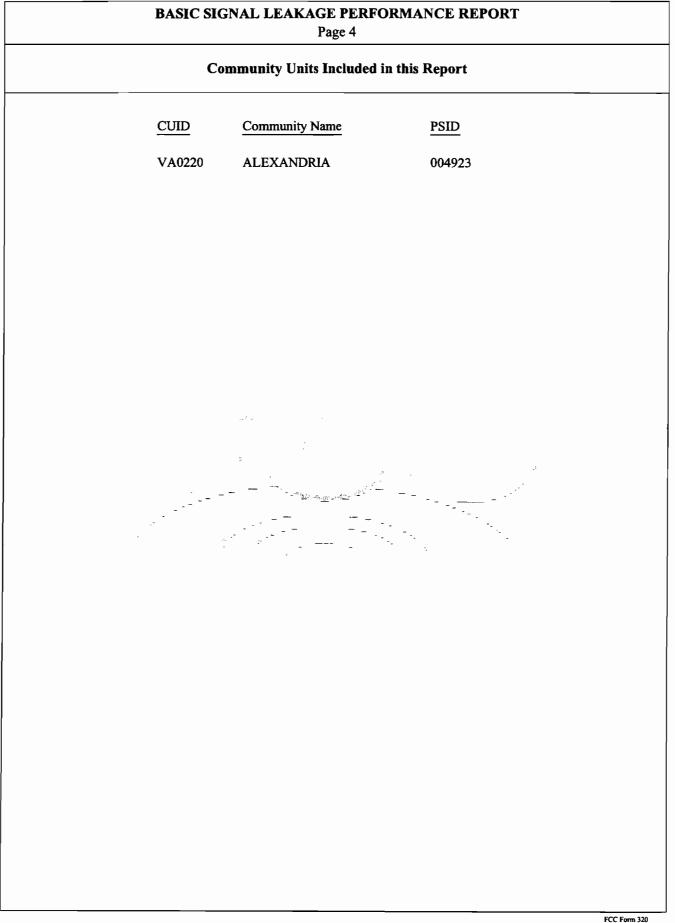
By signing below the operator certifies that, in the case of an individual operator, he or she is not subject to a denial of federal benefits that include FCC benefits pursuant to section 5301 of the Anit-Drug Abuse Act of 1988, 21, U.S.C. 862, or, in the case of a non-individual operator (e.g., corporation, partnership or other unincorporated association), no party to the operator is subject to a denial of federal benefit that includes FCC benefits pursuant to that section. For the definition of a 'party' for these purposes, see 47 CFR, Section 1.2002(b).

I certify that I am <u>ComplianceGeneralist</u> (Official Title) of <u>COMCAST OF VIRGINIA INC</u> (Legal Name of cable System Owner), that I have examined this report and that, to the best of my knowledge and belief, all statements in this report are true, correct and complete, and are made in good faith.

### Signed on: 08/11/2006

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, §1001) AND /OR REVOCATION OF ANY STATION LICENSE (U.S. CODE, TITLE 47, §312(A)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).





BASIC SIGN	AL LEAKAGE PERFORMAN Page 5	NCE REPORT
Exhibit	A Aeronautical Frequencie	s (MHz)
109.275	283.2625	367.2625
115.275	289.2625	373.2625
121.2625	295.2625	379.2625
127.2625	301.2625	385.2625
133.2625	307.2625	391.2625
229.2625	313.2625	397.2625
235.2625	319.2625	
241.2625	325.2625	
247.2625	331.275	
253.2625	337.2625	
259.2625	343.2625	
265.2625	349.2625	
271.2625	355.2625	
277.2625	361.2625	

1.13

### IMPORTANT Flyover CLI FILING INFORMTION for COMCAST CABLE COMMUNICATIONS, INC.

### RE: Alexandria, Va (headend name)

If this Flyover CLI report is to be used for your annual FCC Signal Leakage filing, a copy of the report and this form should be forwarded to:

Sheila Smith		Ruth Billebault
<b>Comcast Engineering/Compliance</b>	e	<b>Comcast Engineering/Compliance</b>
1500 Market Street		1500 Market Street
Philadelphia, PA 19102 o	Dr	Philadelphia, PA 19102

Please review the service area described in the Flyover report and submit a complete list of all FCC Community Unit Number codes (ie, "WA0123") that it covers and the commonly used name for that Community (ie., "Springfield" or "Acme County", etc.). Remember, there will frequently be several Community Unit Numbers that apply to any one cable system.

Attach a copy of this form to your flyover CLI report. <u>Be sure to include a copy of</u> the 8.5x11" map.

PSID # 004923 (Please print or type)

COMMUNITY UNIT NUMBER

### **COMMUNITY NAME**

1. <u>VA</u> <u>0220</u>

<u>Alexandria</u>

(continue on reverse if more space is needed)

Please provide the name and phone & fax numbers for the person completing this form should more information be required.

Contact	Cynthia McKnight	Phone: ( 301 ) <u>625-3434</u>
		Fax : (301) <u>625-3575</u>

### Summary or Service Calls Annual Report 2007 July 1, 2006- June 30,2007

.

Month/Year Subscriber number	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	,	Avg Subs
	# of Calls	Avg %												
Type of Problem														
Customer Equipment	83	94	84	77	103	78	98	134	65	117	158	121	1174	0.242
Converter Problem	431	446	462	483	331	501	523	366	296	528	373	539	5175	1.066
Tap to TV Set	456	513	510	477	502	533	516	527	491	517	547	580	6638	1.367
Distribution	0	0	0	0	0	0	0	0	0	0	0	0	785	0.162
Fiber	1	0	0	0	0	0	0	0	0	0	0	0	0	0.000
Headend	0	0	0	0	0	1	0	0	0	0	0	3	4	0.001
Other: cxl, disco	259	303	289	325	277	268	363	319	226	365	312	303	3471	0.715
No trouble found/not														
home	230	170	175	274	193	200	314	222	162	324	238	253	2751	0.566
Total Calls	1460	1526	1520	1636	1406	1581	1814	1568	1240	1851	1628	1799	1 <b>882</b> 1	3.875
% of customer base	2.955	3.100	3.078	3.311	2.856	3.202	3.672	3.185	2.511	3.677	3.235	3.572	3.875	

### OUTAGE REPORT ANNUAL 2006 JULY 1,2006- JUNE 30, 2007

### Codes for Cable System Outages

-

¥. . .

EQ	Comcast Equipment Failure
RM	Routine Maintenance
EPO	Electrical Power Outages (Not Virginia Power)

### Summary - July 1, 2006 to June 30, 2007

Code	count	TOTAL down time in minutes	TOTAL number of cust affected	TOTAL cust minutes out
EQ	128	18607	12547	2046683
RM	<b>~</b> 21	2462	1911	284828
EPO	19	1102	1633	94873
EPOVA	19	927	1074	51170
SP	<b>a</b> 0	0	0	0
СТ	5	126	412	7761
PD	46	10428	5415	1197383
	238			
TOTAL		33652	<b>22992</b>	3682698

	¢,	AVERAGE down time	AVERAGE number of cust	AVERAGE cust minutes
Code	count	in minutes	affected	out
EQ RM EPO EPOVA SP CT PD	128 21 19 19 0 5 ~46	145.367 117.238 58.000 48.789 0 25.200 226.696	98.023 91.000 85.947 56.526 0 84.400 117.717	15989.711 13563.238 4993.316 2693.158 0 1552.200 26030.065
TOTAL - A	*238 VERAGE	141.395	96.605	15473.521

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$\begin{array}{c c c c c c c c c c c c c c c c c c c $			07	June 30,20	iy 1,2006	JL	
NodeCodecountin minutesaffected06/22/200656EQ115417406/27/2006349PD17945406/29/2006224EQ1391807/03/2006398PD11,32920307/03/2006147EQ11,32920307/03/2006148PD11,1889507/03/200686EQ129019407/03/2006179EQ19011807/03/2006179EQ1334207/03/200623EQ15225107/07/200623EQ114427207/07/200623EQ17619807/07/2006111EQ11337207/07/2006107EQ12896807/10/2006107EQ12896807/10/2006139EQ1729507/10/2006107EQ1442207/10/2006107EQ14314207/07/2006107EQ14914207/10/2006139EQ1729507/11/2006107EQ11442707/10/2006107EQ11442407/25/200637EQ14914207/25/2006 </td <td></td> <td>number of</td> <td></td> <td></td> <td></td> <td></td> <td></td>		number of					
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	cust						
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	26796	174	154		- FO -	- 56	06/22/2006
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	42876						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	702						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	166800			-			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	269787			•			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	112860			-			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	12408			-			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	56260			-1			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10620			1			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1386						
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	64512			1			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	39168		144	1	EQ		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	15048	198	76	1	EQ -	23	07/07/2006
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1520	20	76	1	EQ	90	07/07/2006
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	9576			1			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	19652			1			
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1188			1			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	6958						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	12650			1			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	4459			1			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	564			1			
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2795			-			
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	3120			•			
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	2490 7225			-			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	10680						
08/21/2006         45         EQ         1         172         209           08/21/2006         41         EQ         1         233         209           08/24/2006         39         EW         1         192         124           08/25/2006         397         EW         1         70         100           08/25/2006         397         EW         1         70         100           08/25/2006         473         EPO         1         85         113           08/31/2006         102         EPO         1         46         112           08/31/2006         425         EQ         1         110         167           09/01/2006         425         EQ         1         278         144           09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23	4240						
08/21/2006         41         EQ         1         233         209           08/24/2006         39         EW         1         192         124           08/25/2006         397         EW         1         192         124           08/25/2006         397         EW         1         70         100           08/25/2006         473         EPO         1         85         113           08/31/2006         102         EPO         1         46         112           08/31/2006         425         EQ         1         110         167           09/01/2006         425         EQ         1         258         144           09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/19/2006         425         EQ         1         55         128           09/25/2006         55         EQ         1         55         128           09/25/2006         55         EQ         1         23	35948			-			
08/24/2006         39         EW         1         192         124           08/25/2006         397         EW         1         70         100           08/25/2006         473         EPO         1         85         113           08/31/2006         102         EPO         1         46         112           08/31/2006         425         EQ         1         110         167           09/01/2006         425         EQ         1         258         144           09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110	48697						
08/25/2006         397         EW         1         70         100           08/25/2006         473         EPO         1         85         113           08/31/2006         102         EPO         1         46         112           08/31/2006         425         EQ         1         110         167           09/01/2006         425         EQ         1         258         144           09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/19/2006         55         EQ         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	23808						
08/25/2006         4/3         EPO         1         85         113           08/31/2006         102         EPO         1         46         112           08/31/2006         425         EQ         1         110         167           09/01/2006         425         EQ         1         258         144           09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	7000			-			
08/31/2006         102         EPO         1         46         112           08/31/2006         425         EQ         1         110         167           09/01/2006         425         EQ         1         258         144           09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/19/2006         425         EQ         1         41         171           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	9605						
08/31/2006         425         EQ         1         110         167           09/01/2006         425         EQ         1         258         144           09/12/2006         21         EQ         1         278         145           09/12/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/19/2006         425         EQ         1         41         171           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	5152						
09/01/2006         425         EQ         1         258         144           09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	18370			-			
09/12/2006         21         EQ         1         278         145           09/18/2006         19         EQ         1         92         171           09/19/2006         425         EQ         1         41         171           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	37152			1			
09/19/2006         425         EQ         1         41         1/1           09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	40310	145	278	1	EQ		09/12/2006
09/21/2009         183         EPO         1         55         128           09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	15732			1			09/18/2006
09/25/2006         55         EQ         1         23         69           08/31/2006         416         EQ         1         110         68	7011			-			
08/31/2006 416 EQ 1 110 68	7040			1			
	1587			1			
	7480			1			
08/31/2006 440 EQ 1 110 55	6050						
08/31/2006 441 EQ 1 110 16	1760						
09/01/2006 440 EQ 1 258 56	14448			-			
09/01/2006         441         EQ         1         258         70           09/02/2006         385         PD         1         54         40	18060 2160						
09/02/2006 365 PD 1 34 40 09/05/2006 329 EQ 1 121 75	9075	• +		1			
09/05/2006 329 EQ 1 121 75 09/08/2006 42 EQ 1 97 52	5044						
09/06/2006 42 EQ 1 97 52 09/11/2006 456 EQ 1 44 19	836			- 1 -			
09/16/2006 415 PD 1 41 65	2665						
09/19/2006 402 PD 1 41 66	2706						
09/19/2006 441 PD 1 41 16	656			-			
09/19/2006 355 EQ 1 67 78	5226						
10/02/2006 473 EQ 1 383 107	40981			-			

		<u>July 1,2006 - Ju</u>	me 30,20		450	
10/02/2006	465	EQ	1	42	150	6300
10/07/2006	55	EQ	1	41	211	8651
10/10/2006	447	EQ	1	77	70	5390
10/25/2006	437	EQ	1	105	138	14490
10/26/2006	61	EPOVA	1	27	-110	2970
10/31/2006	476	EQ	1 1	104	124	12896
11/09/2006	332	EQ	1	- 44	123	5412
11/21/2006	439	EQ	1	84	310	26040
10/25/2006	352	EQ	1	159	35	5565
10/31/2006	476	EQ	1	474	96 -	45504
10/31/2006	304	EQ	1	109	80 -	8720
11/06/2006	233	EQ	1	85	75	6375
11/06/2006	390	EQ	1	75	58	4350
11/10/2006	126	EQ	1	72	29	2088
10/25/2006	432		<u> </u>	261	110	28710
10/25/2006	433		1	261	223	58203
10/25/2006	434	RM		261	106	27666
10/25/2006	435	RM		261	113	29493
10/25/2006	435			293	134	39262
11/16/2006	341		1	293 58	33	1914
	439		1		280	
11/22/2006			•			8120
12/05/2006	302		1	15	61	915
12/05/2006	303	CI	1	15	109	1635
12/05/2006	304	СТ	1	15	112	1680
12/05/2006	305	СТ	1	15	99	1485
12/12/2006	439	EQ	-1	72	277	19944
12/13/2006	369	EQ	1	89	86	7654
12/13/2006	- 399	EQ	-1	88	64	5632 -
12/13/2006	349	EQ	-1	86 -	53	4558
12/14/2006	10	EQ	1	168	64	10752
12/15/2006	10	EQ	1	120	160	19200
12/28/2006	126	EQ	1	58 -	34	1972
12/29/2006	7	PD	-1	24	20	480
12/29/2006	135	EQ	-1	51	27	1377
12/31/2006	285	EPO	1	40	121	4840
01/15/2007	224	PD	1	82	45	3690
01/19/2007	416	EQ	1	240	53	12720
01/19/2007	415	ĒQ	1	218	25	5450
01/31/2007	332	- EQ -	<u>i</u>	- 99	127	12573
02/05/2007	483	EQ	1	210	154	32340
02/05/2007	485	ĒQ	1	210	152	31920
02/06/2007	5	EQ	1	59	111	6549
02/10/2007	278	EQ	- 1	103	200	20600
02/19/2007	278	EPO		82	406	33292
02/19/2007	330		-1	0∠ 140	113	
01/28/2007	433			140	47	15820 8413
	433					
02/05/2007		EQ	1	210	88	18480
02/05/2007	351	EPO	1	13	80	1040
02/05/2007	424	EPO	1	13	88	1144
02/05/2007	427	EPO	1	13	42	546
02/08/2007	10	EQ	1	36	86	3096
02/08/2007	274	EPO	1	44	63	2772
02/09/2007	78	EQ	1	96	22	2112
02/12/2007	274	EQ	1	85	39	3315
03/08/2007	31	EQ	1	51	133	6783 -
03/13/2007	145	EQ	1	56	156	8736
03/14/2007	727	PD	1	220	325	71500
03/14/2007	728	PD	-1	205	891	182655
03/15/2007	141	PD	1	270	164	44280
03/15/2007	147	PD	-1 -	-170	167	28390
03/15/2007	273	PD	1	170	122	20740
03/15/2007	274	EQ	1	130	267	34710
03/15/2007	278	PD	1	345	319	110055
03/15/2007	258	PD	1	93	333	30969

03/15/2007	257	July 1,2006 - J	1	93	<u> </u>	10660
03/15/2007	237	- PD	-1	93	534 112	49662 10416
02/22/2007	220		<u> </u>	30	26	780
02/24/2007		EQ	<u> </u>	16	34	544
02/27/2007	478			72	30	2160
03/03/2007	5		i	66	31	2046
03/11/2007	362	EQ	1	88	11	968
03/13/2007	- 28	EQ	1	66	20	1320
03/14/2007	732	- PD -	1	202	59	11918
03/15/2007	5	EPO	1	50	22	1100
03/15/2007	124	PD 1	1	170	55	9350
03/15/2007	140	PD	1	170	44	7480
03/15/2007	172	EQ	1	145	39	5655
03/15/2007	174	EQ	1	130	38	4940
03/15/2007	228	PD PD	1	170	70	11900
03/15/2007	230		1	245 130	73 61	17885
03/15/2007	281			130	94	7930
03/15/2007	284	EQ		130	45	5850
03/15/2007	118	EQ	<u> </u>	130	44	5720
03/15/2007	110			330	14	4620
03/15/2007	149	EQ +	<u>i</u>	130	6	780
03/15/2007	158	PD	1	275	23	6325
03/15/2007	172	PD	1	245	27	6615
03/15/2007	193	PD T	- 1	275	17 -	4675
03/15/2007	218	PD	-1	200	13 -	2600
03/15/2007	285	PD T	1	170	44	7480
03/15/2007	291	EQ	1	130	19	2470
03/15/2007 03/15/2007	292	EQ	1	130	34	4420
03/15/2007	5	PD EQ	1	170	34 75	5780 9750
03/15/2007	238		1	130	63	8190
03/15/2007	282		<u>i</u>	245	27	6615
03/15/2007	283			245	41	10045
03/15/2007	284	PD	1	93	91	8463
03/15/2007	394	EPO	1	84	- 20	1680
03/15/2007	-141	EQ	1	50	78	3900
03/22/2007	392	EPO	1	163	17.	2771
03/24/2007	319	EQ	1	59	115.	6785
03/25/2007	392	PD	1	84	9.	756
03/29/2007	527	EPO	1	27	64.	1728
03/30/2007	322	RM	1	75	16.	1200
03/30/2007	527	RM	1	43	64.	2752
03/30/2007	527	RM	1	49	66.	3234
04/03/2007	192	RM	1	49	31.	1333
04/03/2007	379	RM	1	35	16.	560
04/04/2007	<u>579</u>	RM	1	41	9.	369
04/04/2007	9	RM	1	41		1271
04/05/2007	94	RM	1	115	31.	5060
04/06/2007	380	RM	1	149	44. 33.	4917
04/06/2007	535	RM	1	149	333. 348.	50112
04/06/2007	535	RM	1	45	348.	15660
04/11/2007	420	RM	1	75	24.	1800
04/13/2007	478	RM	1	72	106.	7632
0101001	28	RM	1	90	22.	1980
04/13/2007						
04/13/2007		RM	1	50	34	1/00
04/23/2007	400	RM PD	<u> </u>	50 54	<u> </u>	1700 16524
		PD PD	1 1 1	50 54 47	34. 306. 75.	16524 3525

05/02/2007	224	lly 1,2006 - PD	1	189	50.	9450
	224	PD	1	56	50.	2800
05/02/2007	19	EQ	1	74	116.	8584
05/21/2007	19	EQ	1	74	116.	9164
05/22/2007			1		110.	4740
05/22/2007	447	EQ	1	395		28
05/23/2007	239	EQ		1	28.	5310
05/23/2007	447	EQ	1	90	59.	
05/23/2007	446	EQ	1	88	60.	5280
05/23/2007	66	PD	1	323	118.	38114
05/29/2007	312	EQ	1	.25	51.	1275
05/29/2007	319	EQ	1	76	82.	6232
05/30/2007	486	EQ	1	107	36.	3852
05/31/2007	91	EQ	1	71	100.	7100
05/31/2007	486	EQ	1	146	41.	5986
05/31/2007	73	EQ	1	50	14.	700
06/02/2007	154	PD	1	54	15.	810
06/04/2007	294	EPO	1	71	50.	3550
06/11/2007	324	EQ	1	101	12.	1212
06/11/2007	117	EQ	1	348	547.	190356
06/13/2007	288	EQ	1	793	27.	21411
06/14/2007	144	EQ	1	38	65.	2470
06/14/2007	227	EQ	1	31	64.	1984
06/14/2007	232	EQ	1	31	45.	1395
06/18/2007	443	EQ	1	371	95.	35245
06/18/2007	510	PD	1	371	7.	2597
06/18/2007	511	EQ	1	371	105.	38955
06/18/2007	512	EQ	1	501	57.	28557
06/18/2007	19	EQ	1	222	116.	25752
06/18/2007	274	PD	1 1	412	230.	94760
06/18/2007	189	EQ	1	99	53.	5247
06/18/2007	- 19	EQ	1	99	115.	11385
06/18/2007	19	EQ	1	99	115.	11385
06/18/2007 06/18/2007	<u>19</u> 19	EQ EQ	1	99 99	115. 115.	11385 11385
06/18/2007	19	EQ		1027	116.	119132
06/19/2007	299	EQ	1	34	26.	884
06/20/2007	154	EQ	1	70	28.	1960
06/21/2007	21	EPOVA	1	50	127.	6350
06/21/2007	25 26	EPOVA EPOVA		50 50	<u>59.</u> 50.	2950 2500
06/21/2007	372	EPOVA		50	27.	1350
06/21/2007	374	EPOVA	1	50	11.	550
06/21/2007	38	EPOVA	1	50	20.	1000
06/21/2007	384	EPOVA	1	50	28.	1400
06/21/2007	39	EPOVA	1	50	28.	1400 3100
06/21/2007 06/21/2007	42 43	EPOVA EPOVA		50 50	62. 86.	4300
06/21/2007	62	EPOVA	1	50	149.	7450
06/21/2007	76	EPOVA	1	50	47.	2350
	78	EPOVA	1	50	<u> </u>	2330
06/21/2007			1			1700
06/21/2007	79	EPOVA EPOVA	1	50	34.	2750
06/21/2007	80	EPOVA		50	55.	2150
06/21/2007	81	EPOVA	1	50	43.	3400
06/21/2007	82	EPOVA		50	<u>68.</u>	800
06/21/2007	85	EPOVA	1	50	16.	

	Outage Report ANNUAL 2006 July 1,2006 - June 30,2007					
06/21/2007	322	EPO	1	63	91.	5733
	Total Average		238	33,652 141.395	22,992 96.605	3,682,698 15,473.521

### Outage Report sorted by Code ANNUAL 2006 JULY 1, 2006 - JUNE 30, 2007

### **CT - Outages Corrected Themselves**

	Node	Code	count	minutes	cust affected	out
12/05/2006	302	CT	1	15	61	915
12/05/2006	303	CT	1	15	109	1635
12/05/2006	304	CI	1	15	112	1680
12/05/2006	305	CT	1	15	99	1485
03/03/2007	5	Cl	1	66	31	2046
	Subtotal		5	126	412	7761
	Subtotal - Average			25.200	82.400	1552.200

### EQ - Comcast Equipment Failure

07/25/2000	10	EQ		115	110	12650
06/22/2006	56		i	154	174	26796
06/29/2006	224			39	18	702
07/03/2006	147	- EQ	<del></del>	1,329	203	269787
07/03/2006	86			1,323	66	12408
07/03/2006	425		<u> </u>	290	194	56260
07/03/2006	179		<u> </u>	90	118	10620
07/06/2006	24		<u> </u>	52	251	13052
07/07/2006	24				448	
					• • •	64512
07/07/2006	60	EQ		144	272	39168
07/07/2006	23 90	EQ		76	198	15048
07/07/2006		EQ	1	76	20	1520
07/08/2006	111	EQ	1	133	72	9576
07/10/2006	107	EQ	1	289	68	19652
07/10/2006	139	EQ	1	72	95	6840
07/19/2006	37	EQ	1	54	22	1188
07/24/2006	169	EQ	1	49	142	6958
07/31/2006	75	EQ	1	65	48	3120
08/02/2006	238	EQ	1	80	83	6640
08/07/2006	196	EQ	1	30	83	2490
08/07/2006	195	EQ	1	85	85	7225
08/07/2006	507	EQ	1	120	- 89	10680
08/21/2006	45	EQ	1	172	209	35948
08/21/2006	41	EQ	1	233	209	48697
08/31/2006	425	EQ	1	110	167	18370
08/31/2006	416	EQ	1 –	110	68	7480
08/31/2006	440	EQ	1	110	55	6050
08/31/2006	441	EQ	1	110	16	1760
09/01/2006	425	EQ	1	258	144	37152
09/01/2006	440	EQ	1	258	56	14448
09/01/2006	441	EQ	1	258	70	18060
09/05/2006	329	EQ	1	121	75	9075
09/08/2006	42	EQ	1	97	52	5044
09/11/2006	456	EQ	1	44	19	836
09/12/2006	21	EQ	1	278	145	40310
09/18/2006	19	- EQ -	1	92	171	15732
09/19/2006	425	EQ	1	41 +	171	7011
09/19/2006	355	ĒÕ	<u> </u>	67	78	5226
09/25/2006		- EQ +	<u> </u>	23	69	1587
10/02/2006	473	ĒQ		383	107	40981
10/02/2006	465	Ē	<u>i</u>	42	150	6300
10/07/2006	55		1	41	211	8651
10/10/2006	447		<u> </u>		70	5390
10/25/2006	437		<u> </u>	105	138	14490
10/25/2006	352		1	159	35	5565
10/31/2006	476	EQ	<u> </u>	474	96	45504
10/31/2006	476			104	124	12896

### Outage Report sorted by Code ANNUAL 2006 JULY 1, 2006 - JUNE 30, 2007

			<u>006 - JONE 3</u>			
11/06/2006	233	EQ	1	85	75	6375
11/06/2006	390	EQ	1 -	75	58	4350
11/09/2006	332	EQ	1	44	123	5412
11/10/2006	126	EQ	1 -	72	29	2088
11/21/2006	439	EQ -		84	310	26040
11/22/2006	439	EQ		29	280	8120
12/12/2006	439	EQ	1	72	277	19944
12/13/2006	369	-EQ	1	89	86	7654
12/13/2006	399	EQ		88	64	5632
12/13/2006	349	EQ	<u> </u>	86	53	4558
12/14/2006	10	ĒQ		168	64	10752
12/15/2006	10	<u> </u>		120	160	19200
12/28/2006	126	EQ -		- 58	34	1972
12/29/2006	135	Ēã	<u> </u>	51	27	1377
01/19/2007	416	- ĒQ	<u> </u>	240	53	12720
01/19/2007	415	- EQ		218	25	5450
01/28/2007	433		· 1	179	47	8413
01/31/2007	332	EQ		99	127	12573
02/05/2007	483	EQ		210	154	32340
02/05/2007	485			210	154	31920
02/05/2007	405			210		18480
02/06/2007				59	88	
02/08/2007	5 	EQ		59 36		6549
		EQ			86	- 3096
02/09/2007	78	EQ		96	22	2112
02/10/2007	278	EQ	1	103	200	20600
02/12/2007	274	EQ	1	85	39	3315
02/22/2007	220	EQ	1	30	26	780
02/24/2007	271	EQ	1	16	34	544
02/27/2007	478	EQ	1	72	30	2160
03/08/2007	31	EQ	1	51	133	6783
03/11/2007	362	EQ	1	88	11	968
03/13/2007	145	EQ	1	56	156	8736
03/13/2007	28	EQ	1	66	20	1320
03/15/2007	274	EQ	1	130	267	34710
03/15/2007	172	EQ	1	145	39	5655
03/15/2007	174	EQ	1	130	38	4940
03/15/2007	. 232	EQ	1	130	61	7930
03/15/2007	281	EQ	1	130	94 -	12220
03/15/2007	284	EQ		130	45	5850
03/15/2007	118	EQ	- 1	130	44	5720
03/15/2007	149	EQ	1	130	6	780
03/15/2007	291	EQ	1	130	19	2470
03/15/2007	292	EQ	1	130	34	4420
03/15/2007	227	EQ	1 -	130	75	9750
03/15/2007	238	EQ	1	130	63	8190
03/15/2007	141	ĒQ	<u> </u>	50	78	3900
03/24/2007	319	EQ	1	59	115.	6785
05/01/2007	319	EQ	1.	231	16.	3696
05/21/2007	19	EQ	1	74	116.	8584
05/22/2007	19	EQ	1	79	116.	9164
05/22/2007	447	EQ	1	395	12.	4740
05/23/2007	239	EQ	1	1	28.	28
05/23/2007	447	EQ	1	90	59.	5310
05/23/2007	446	EQ	1	88	60.	5280
05/29/2007	312	EQ	1	25	51.	1275
05/29/2007	319	EQ	1	76	82.	6232
05/30/2007	486	EQ	1	107	36.	3852
05/31/2007	91	EQ	1	71	100.	7100
05/31/2007	486	EQ	1	146	41.	5986
05/31/2007	73	EQ	1			
03/3/12007				50	14.	700

### Outage Report sorted by Code ANNUAL 2006 JULY 1, 2006 - JUNE 30, 2007

		00211,4	000 - 30NE 3	0, 2007		
06/11/2007	324	EQ	1	101	12.	1212
06/11/2007	117	EQ	1	348	547.	190356
06/13/2007	288	EQ	1	793	27.	21411
06/14/2007	144	EQ	1	38	<b>6</b> 5.	2470
06/14/2007	227	EQ	1	31	64.	1984
06/14/2007	232	EQ	1	31	45.	1395
06/18/2007	443	EQ	1	371	<b>95</b> .	35245
06/18/2007	511	EQ	1	371	105.	38955
06/18/2007	512	EQ	1	501	57.	28557
06/18/2007	19	EQ	1	222	116.	25752
06/18/2007	189	EQ	1	99	53.	5247
06/18/2007	19	EQ	1	99	115.	11385
06/18/2007	19	EQ	1	99	115.	11385
06/18/2007	19	EQ	1	99	115.	11385
06/18/2007	19	EQ	1	99	115.	11385
06/18/2007	19	EQ	1	1027	116.	119132
06/19/2007	299	EQ	1	34	<b>26</b> .	884
06/20/2007	154	EQ	1	70	28.	1960
08/24/2006	39	EQ	1	192	124	23808
08/25/2006	397	EQ	1	70	100	7000
00/20/2000						

Subtotal	128	18607	12547	2046683
Subtotal - Average		145.367	98.023	15989.711

### EPO - Electrical Power Failure (Not Virginia Power)

07/03/2006	380	EPO T	1	33	-42	1386
07/25/2006	29	EPO	1	49	91	4459
07/31/2006	29	EPO	1	65	43	2795
08/17/2006	307	EPO	1	106	40	4240
08/25/2006	473	EPO	1	85	113	9605
08/31/2006	102	EPO	1	46	112	5152
12/31/2006	285	EPO	1	40	121	4840
02/05/2007	351	EPO	1	13	80	1040
02/05/2007	424	EPO	1	13	88	1144
02/05/2007	427	EPO	1	13	42	- 546
02/08/2007	274	EPO	1	44	63	2772
02/19/2007	278	EPO	1	82	406	33292
03/15/2007	5	EPO	1	50	22	1100
03/15/2007	394	EPO	1	84	20	1680
03/22/2007	392	EPO	1	163	17.	2771
03/29/2007	527	EPO	1	27	64.	1728
06/04/2007	294	EPO	1	71	50.	3550
06/21/2007	322	EPO	1	63	<b>9</b> 1.	5733
09/21/2009	183	EPO	1	55	128	7040

Subtotal	19	1102	1633	94873
Subtotal - Average		58.000	85. <del>9</del> 47	<b>499</b> 3.316

### **EPOVA - Dominion Virginia Power Failure**

06/21/2007	21	EPOVA	1	50	127.	6350
06/21/2007	25	EPOVA	1	50	59.	2950
06/21/2007	26	EPOVA	1	- 50	50.	2500
06/21/2007	372	EPOVA	1	50	27.	1350
06/21/2007	374	EPOVA	1	50	-11.	550
06/21/2007	38	EPOVA	1	50	20.	1000
06/21/2007	384	EPOVA	1 1	50	28.	1400

# **Comcast**

## **2007 ANNUAL REPORT**

## CUSTOMER SERVICE TELEPHONE ACTIVITY

AUGUST 30, 2007

### **Customer Service Phone Activity**

July 1, 2006– June 30, 2007

### **July 2006**

Total calls received - 49,003 Total calls answered - 46,223 Percentage answered - 94.33% Total % of calls answered w/ in 30 sec - 73.82% Average call handling time in seconds - 321

### August 2006

Total calls received - 53,319 Total calls answered - 50,113 Percentage answered - 93.99 % Total % of calls answered w/ in 30 sec - 70.76% Average call handling time in seconds - 324

### September 2006

Total calls received - 53,611 Total calls answered - 48,607 Percentage answered - 90.67% Total % of calls answered w/ in 30 sec - 67.03% Average call handling time in seconds - 332

### October 2006

Total calls received - 53,350 Total calls answered - 51,040 Percentage answered - 95.67% Total % of calls answered w/ in 30 sec - 77.70% Average call handling time in seconds - 307

### November 2006

Total calls received - 49,091 Total calls answered - 48,064 Percentage answered - 97.91% Total % of calls answered w/ in 30 sec - 86.47% Average call handling time in seconds - 298

### **December 2006**

Total calls received - 53,430 Total calls answered - 50,083 Percentage answered - 93.74% Total % of calls answered w/ in 30 sec - 66.71% Average call handling time in seconds - 331

### January 2007

Total calls received - 62,282 Total calls answered - 57,629 Percentage answered -92.53%Total % of calls answered w/ in 30 sec -61.91%Average call handling time in seconds -332

### February 2007

Total calls received - 57,179 Total calls answered - 51,486 Percentage answered - 90.04% Total % of calls answered w/ in 30 sec - 59.05% Average call handling time in seconds - 339

### **March 2007**

Total calls received - 66,785 Total calls answered - 57,017 Percentage answered - 85.37% Total % of calls answered w/ in 30 sec - 51.24% Average call handling time in seconds - 359

### April 2007

Total calls received - 53,639 Total calls answered - 48,843 Percentage answered - 91.06% Total % of calls answered w/ in 30 sec - 84.31% Average call handling time in seconds - 339

### May 2007

Total calls received - 66,116 Total calls answered - 59,652 Percentage answered - 90.22% Total % of calls answered w/ in 30 sec - 86.88% Average call handling time in seconds - 326

### **June 2007**

Total calls received - 62,981 Total calls answered - 54,785 Percentage answered - 86.99% Total % of calls answered w/ in 30 sec - 88.56% Average call handling time in seconds - 320

26:27 2-12-08

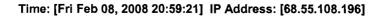


Alice Cave <acave9@comcast.net>

02/08/2008 08:59 PM Please respond to Alice Cave <acave9@comcast.net> To <alexvamayor@aol.com>, <timothylovain@aol.com>, <councilmangaines@aol.com>, <council@krupicka.com>, <delpepper@aol.com>, <paulcsmedberg@aol.com>, cc

bcc

Subject COA Contact Us: Comcast



Issue Type:	Mayor, Vice-Mayor and Council Members
First Name:	Alice
Last Name:	Cave
Street Address:	3736 Gunston Road
City:	Alexandria
State:	VA
Zip:	22302
Phone:	7033791521
Email Address:	acave9@comcast.net
Subject:	Comcast
	Mr. Mayor and Members of the Council, It is my understanding that the
	City's contract with Comcast is on Tuesday's Council agenda. Unfortunately,
	my husband and I are unable to be there, but we wanted to express our
	concerns to you about Comcast service. The service we are concerned with
	is "high-speed" internet service. I use quotations around high-speed
	because our service has been lousy for a long time. We have called and
	written them. They sent technicians to the house who replaced some of the
	cable, but the problem was not solved. We are unable to use VOIP phone
	service because the connection is too unreliable. More often than not,
	service is so slow it is torture to try and watch any video over the web.
	We are paying a lot for service we are not getting. I have gotten ads from
	them talking about having television shows over the web. There is no way
Comments:	our level of service would support that! Our feeling is that they are not
	investing enough in network infrastructure, and that they are
	over-subscribed in our area. Because Comcast is essentially a monopoly

given the City's sole-source contract with them, we have no recourse but to go to DSL (which does not have the potential to be as fast as cable internet service). We live in Parkfairfax, and many of our neighbors suffer these problems as well (no doubt you have heard from some of them). We hope that you can voice these concerns to Comcast directly, and reconsider the practice of sole-sourcing this contract. As it is, Comcast now has no incentive to invest in infrastructure to improve service. Maybe they need a little competition. Thank you for your consideration,

Alice

Cave