

# TV TECHNOLOGY

THE DIGITAL TELEVISION AUTHORITY

Serving the Broadcast, Cable, Production, Post Production, Business and New Media Markets

WWW.TVTECHNOLOGY.COM

VOLUME 24, NO. 11 • MAY 24, 2006

## WHAT'S INSIDE

### NEWS

Infocomm 2006  
Preview  
• page 12



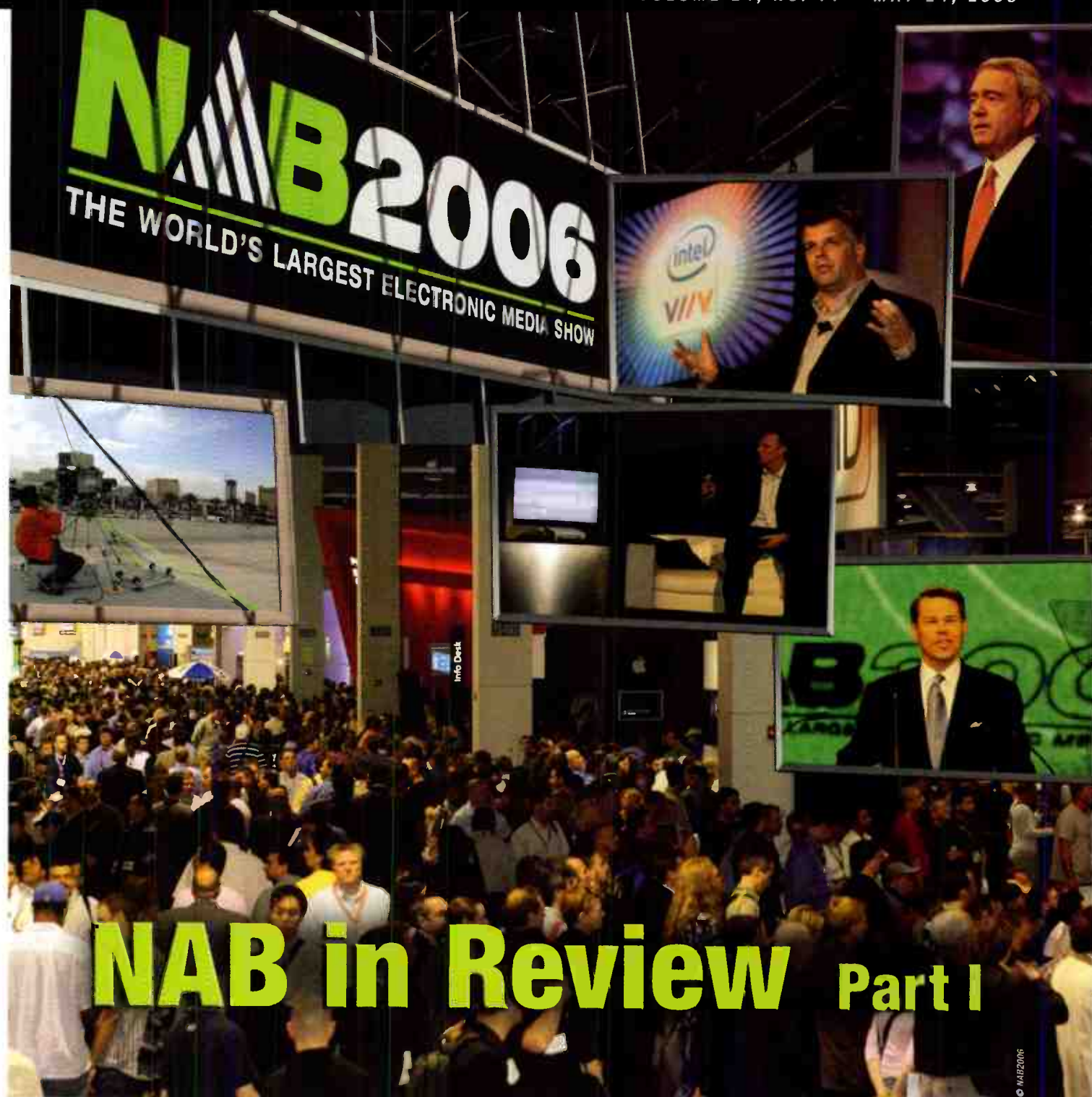
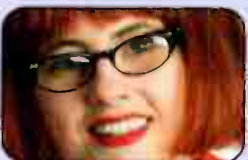
### NAB NEWS

Regis Philbin enters  
NAB Hall of Fame  
• page 40



### FEATURES

The waitress and the  
video camera  
• page 72



## NAB in Review Part I



### OPTO+ Step Into the Light

OPTO+™ brings the power of the 6800+™ modular core processing platform to the fiber optic domain. OPTO+™ is a full range of single-wave and CWDM fiber products delivering cost-effective, easy-to-use solutions in a minimal amount of space, with renowned 6800+™ reliability.

For more information, visit [www.broadcast.harris.com/opto](http://www.broadcast.harris.com/opto)

Canada +1 800 387 0233 | USA East +1 800 231 9673 | USA West +1 888 843 7004 | Latin America +1 305 512 0045

Leitch is a brand of Harris Corporation.

**LEITCH**

**HARRIS**

assuredcommunications™  
Broadcast • Microwave • RF • Government Systems

[www.harris.com](http://www.harris.com)



*video /*  
**16 Channel**  
*audio processing*

**DOLBY™**  
*metadata*  
*insertion*

*automatic*  
**CROSS**  
*conversion*

*automatic*  
**ASPECT RATIO**  
*AFD*

**5.1 to 2.0**  
*downmix*



**VBI**  
*conversion*

*automatic*  
**UP / DOWN**  
*conversion*

## One HD card does it all.

Miranda's **XVP-811i** Up/Down/Cross converter provides frame accurate aspect ratio control, using embedded signaling based on the Active Format Descriptor (AFD) standard. This powerful card also offers 5.1 to 2.0 downmixing, Dolby™ Metadata insertion, and Dolby™ E decoding (optional



card). There's also frame synchronization, video proc amp, and audio processing with mux/demux. The **XVP family** also includes simpler interfaces which can be easily upgraded in the field, thereby minimizing inventory costs. So if you're looking for smarter HD interfacing, call Miranda. We'll help you make it happen.



Tel.: 514.333.1772 | [ussales@miranda.com](mailto:ussales@miranda.com)  
[www.miranda.com](http://www.miranda.com)

**HDTV: MAKING IT HAPPEN**

World Radio History



# IN THIS ISSUE

## NEWS

- 12 InfoComm Expands A/V Reach**  
Annual confab to include behind the scenes tour of SeaWorld
- 82 TV Tech Business**  
Sinclair Launches Multicasts; Wexler Spends \$2.5 Million with Avid; Pro-Bel Reveals IPO Plans; Shotoku Broadcast Systems Moves Office

## NAB IN REVIEW

- 14 Rehr Looks Ahead; Honors Broadcast Vets**
- 16 NHK Inspires Awe with Ultra Hi-Definition**
- 17 NHK Looks to the Future of High-Def**
- 18 Digital Cinema to the Rescue**
- 18 Home Theater Audio Highlighted**
- 20 Martin Sees Multicast Must-Carry in Play**
- 22 Accord Characterizes FCC Face-off**
- 24 Election Atmosphere Is Electrified**
- 24 DTV Conversion Remains D.C.-Centric**
- 25 Technology Boosts Citizen Journalism**
- 26 Katrina Reverberates Nine Months Later**
- 27 TV Experts Discuss Content Distribution**
- 27 ABC's Charles Gibson Honored by RTNDA**
- 28 Multimedia Speakers Riff on Adaptability**
- 28 NAB Gears Up for Fall Event**
- 30 TV Content Defies Old Boundries**
- 32 Internet TV Is More Than 'TelcoTV'**
- 32 New Media Impact Examined**
- 34 The New Isn't Destroying the Old**
- 34 Digital Homes Redefine the Medium**
- 36 IPTV: Watching the Future Unfold**
- 38 Focusing on Independent Networks**
- 40 DTV Goes Mobile In Japan**
- 40 Hall of Famers Honored at NAB2006**
- 42 Hughes Winborne's Wild Ride**
- 44 Sony Announces XDCAM HD Adopters**
- 46 Grass Valley Infinity Marks NAB Debut**
- 47 Apple Releases Final Cut Studio 5.1**
- 48 Omneon Declares Dawn of the MediaGrid**
- 48 Panasonic Expands the P2 Line**
- 50 Harris Unveils Products for New Media**
- 50 Arri Intros Super and Ultra 16s**
- 52 Avid Expands Workgroup Collaboration**
- 53 Opticomm Introduces Configurator**
- 54 Snell & Wilcox Debuts Slate of Gear**
- 54 Fusion Fuses Vinten Radamec**
- 56 da Vinci Refines Nonlinear Capabilities**
- 56 Quantel Delivers Color Correction**
- 57 Wohler Debuts Audio Metadata Analyzer**
- 58 Tektronix Drills Down on Feed Quality**
- 58 SSL Jumps Into Video Market**
- 60 Telestream Focuses on File-based Delivery**

- 60 Network Electronics Unveils Sublime**
- 61 BMS Announces Expansion and Upgrades**
- 62 Calrec Launches Bluefin Signal Proc**
- 62 Evertz Proclaims End-to-End HD Offerings**
- 64 Rohde & Schwartz Supports MediaFLO**
- 64 Miranda Acquires VertigoXmedia**
- 65 Riedel Announces Partnership**
- 66 Euphonix Rolls Out 5-B Control Surface**
- 66 Prime Image Compresses Time**
- 67 Adtec Intros Affordable HD Signage**
- 70 Profits Rebound, Chyron Celebrates 40th**

## FEATURES

- 72 Experiencing TV Campaign Fatigue**  
Tuning In, *Gary Arlen*
- 73 Post Production Thrives At NAB2006**  
Focus On Editing, *Jay Ankeney*
- 74 Videography Is More Than Wielding a Camera**  
Net Soup, *Frank Beacham*
- 76 Thinking Ahead About The Next NAB**  
Production Manager, *Craig Johnston*
- 76 So You Think You Want To Be a CTO...**  
Count On IT, *André V. Mendes*

## EQUIPMENT

- 68,69 Product Showcase**
- 77-80 Classifieds**

### CONTRIBUTING WRITERS

Gary Arlen

Tuning In



Lucky you! If you live beyond the reach of Washington, DC, television stations, you may have avoided this spring's bombastic barrage of TV commercials about the future of TV. According to this endless bombardment of advocacy ads, TV's future depends largely...

p. 72

Craig Johnston

Production Manager



There are a lot of reasons an attendee at NAB is plenty busy shopping for the here-and-now. The halls are humongous, companies aren't sending as many people to the show, and the here-and-now needs are plenty big by themselves. But two products...

p. 76

André V. Mendes

Count on IT



Recently, after talking at a conference, I was approached by a young man who asked me for some pointers on becoming a CTO. Frankly, I am convinced that my impromptu answer was almost completely worthless but the question certainly started...

p. 76



## FROM THE EDITOR

# Déjà Vu at NAB2006

**A**s I wandered the show floor at NAB2006, I got a real sense of déjà vu—like it was 2000 all over again.

You remember those days, don't you? Back at the turn of the century, the show was abuzz about the promise of the Internet. IP technology was going to revolutionize the industry and the PC and the TV would no longer be separate items in the household, but would instead morph into an all-in-one entertainment media hub.

Reality soon set in, and with the collapse of the Internet boom, 9/11 and the resulting recession, the industry was forced to scale back its expectations. We've been slowly recovering

from that era, to where we are now witnessing another predicted boom, the promise of mobile TV.

It was everywhere at the show; you couldn't miss it if you tried. And yet, I felt that the hype was a bit overwhelming and it reminded me of 2000. The only difference was that back then, everyone seemed to have a business plan. But with broadband still in its infancy, the technology just wasn't quite there yet. In 2006, we have the technology, but we're still looking for a business plan.

Which business plan (or plans) will succeed is anybody's guess. But the NAB show is still one of the best places to explore the direction of the industry and discuss what works,

what doesn't, and what could.

In part 1 of our NAB2006 coverage, we take a look back at what the major players and pundits were saying about our industry and what we should look for in the days ahead. We also review what the manufacturers were saying about the state of current technology. In our next issue, we will take a look at the vast array of new products that were rolled out. As I said, the show just keeps getting bigger, and so does our coverage.

Tom Butts  
Editor

[tbutts@imaspub.com](mailto:tbutts@imaspub.com)

## LETTERS

Send to Editor, TV Technology at e-mail [tvtech@imaspub.com](mailto:tvtech@imaspub.com)

### Skills and Knowledge

Dear Editor:

I was forwarded an e-mail from a colleague that contained information from your "Sharpshooter's Tips" weekly newsletter from TV Technology magazine. The article was about white balancing methods for shooters. It was so good to see some definitive procedures and explanations, that I shared it with our chief photographer.

I know it may sound strange, but in these days of decreased pay-scales I am finding that the skill and knowledge level of the photographic staff we (and other news organizations) hire is less than adequate. Simple, basic tenets of photography and videography are not being taught to people who use newsgathering equipment in the "Communications" or "Broad-Comm" programs at most colleges and universities. We have found that our engineering staff has to train many of our photographic staffers in such simple procedures of white balancing, viewfinder set-up, proper use of "Zebras" etc.; all of which one would expect a shooter to know prior to working in a top-10 market.

I get the feeling that our organization is not alone in this dilemma. The advent of cameras with so many "Automatic" functions has lulled today's users of photographic and video equipment into complacency. The four-year institutions who graduate these operators without adequate technical knowledge and skills also are to blame. The educational period in a person's professional life is so crucial in instilling the theories and practices needed to build one's future professional development. Not knowing how to read a waveform monitor or understand what is represented on a vectorscope are not very admirable omissions in a video professional's credentials.

Just some thoughts and feedback from out here in the trenches.

Gregory M. Roehr  
Newton, Mass.

### The 'P' Problem

Dear Editor:

I am happy to see Mary Gruszka's ongoing articles on microphones. I would like to see the series include some real-world testing.

Sometimes I think microphone manufacturers have no idea what they're unleashing on consumers, as well as the broadcast industry. My pet peeve on microphones is their lack of internal filters. Specifically, to limit the popping of "P's."

On one occasion, I made a comment to our local Board Of Supes at city hall. Though my face was a full 12 inches away from the microphone, every time I uttered a "P", I could hear it pop loudly in the PA speakers.

I won't tell you the brand name, but apparently that same mike, or one similar to it, found its way to a major San Francisco network's local newscast. Their news anchor has been popping P's intermittently for about a year now, with the broadcast engineers apparently oblivious to the noise!

But what irks me the most is the cost of equipping a microphone with an internal wind screen to prevent this problem: About a nickel!

Consider this: at one point I was doing a remote baseball broadcast from San Francisco, noted for its strong winds. Gusts were about 40 mph, and the crowd noise sounded more like a gale. To give you an idea of the wind's strength, it hindered your progress if you were walking toward it. If you turned 180 degrees, it had the force to push you forward. But I found an easy fix. I went to a nearby supermarket and bought an ordinary sponge. I had my choice of colors, I picked yellow. I wrapped it around the mike with twist ties.

Total cash outlay: 69 cents, and It worked perfectly.

My question is: If I can make a mike work in 40 mph gusts, why can't a microphone manufacturer equip their broadcast mike to withstand someone uttering a "P"?

I would welcome an article that tests various mikes in real-world conditions.

Bro Duke  
Santa Rosa, Calif.

The staff can be contacted at the phone extensions listed or via e-mail using first initial, last name @imaspub.com

Publisher: Eric Trabb  
732-845-0004  
Associate Publisher: Marlene Lane  
ext. 128

Editor: Tom Butts  
ext. 122  
Managing Editor: Deborah D. McAdams  
ext. 177  
Technology Editor: James E. O'Neal  
ext. 150  
Associate Editor: Melissa Sullivan  
ext. 149

News Correspondents: Susan Ashworth, Robin Berger, Ken Freed, Mary Gruszka, Craig Johnston, Claudia Kienzie, John Merli and Sanjay Talwani

Production Director: Davis White  
ext. 132  
Publication Coordinator: Carolina Schierholz  
ext. 125  
Ad Traffic Manager: Lori Behr  
ext. 134  
Classifieds/Product Showcase  
Coordinator: Linda Sultan  
ext. 109

Ad Coordinator: Caroline Freeland  
ext. 153  
Circulation Manager: Kwentin Keenan  
ext. 108

President: Stevan B. Dana  
ext. 110  
CEO: Carmel King  
ext. 157  
Chief Financial Officer: Chuck Inderrieden  
ext. 165  
Editorial Director: T. Carter Ross  
ext. 120

TV Technology (ISSN: 0887-1701) is published semi-monthly by IMAS Publishing (USA) Inc. 5827 Columbia Pike, Third Floor, Falls Church VA 22041. Phone: 703-998-7600. FAX: 703-998-2966. The international edition is published monthly along with the month's second domestic edition. Periodicals postage paid at Falls Church VA 22046 and additional mailing offices. POSTMASTER: Send address changes to TV Technology, P.O. Box 1214, Falls Church VA 22041. Copyright 2006 by IMAS Publishing (USA) Inc. All rights reserved. For reprints contact the author and TV Technology.

For address changes, send your current and new address to TV Technology a month in advance at the above address. Unsolicited manuscripts are welcome for review; send to the attention of the appropriate editor. REPRINTS: Reprints of all articles in this issue are available. Call or write Emmily Wilson, P.O. Box 1214, Falls Church, VA 22041. (703) 998-7600 ext. 148 Fax: (703) 998-2966. Member, BPA International.





# I N T E R P L A Y



Introducing the world's first nonlinear workflow engine.

*The right media. The right resolution. The right version. Right away.*  
You'll never work with media the same way again. See why at [www.avid.com/interplay](http://www.avid.com/interplay)

**Avid**  
do more™

© 2006 Avid Technology, Inc. All rights reserved. Product names, service marks, and trademarks are the property of their respective owners. Avid, do more, and Interplay are either registered trademarks or trademarks of Avid Technology, Inc. or its subsidiaries in the United States and other countries. All other marks contained herein are the property of their respective owners.

World Radio History

## HD UVA Flight Demo Completed

VIENNA, VA.

Global Microwave Systems has successfully completed an unmanned aerial vehicle flight demonstration of an HD video wireless link. The company said it is the first known successful flight demonstration of an HD link on a UAV platform, which paves the way for real-time HD long-range aerial filming for the movie and broadcast industries.

GMS, an engineering and development subsidiary of The Allied Defense Group Inc., partnered with Flying-Cam of Belgium to complete the demonstration held last month at GMS facilities in Carlsbad, Calif., by using a GMS High-Definition Messenger Link mounted on a Flying-Cam UAV platform. The GMS HDML includes the High-Definition Messenger Transmitter, the six-antenna diversity Messenger Smart Receiver, the optional Messenger Antennas Array for long-distance coverage and an HD MPEG-2 decoder.

The success of this flight also opens up the capability for opera-

tional deployment of HD UAV platforms in critical surveillance and covert applications that require high-resolution images, according to the company.

Sam Nasiri, president of GMS said, "This is a significant achievement at a point where the whole world of video is in transition from



Flying-Cam UAV with GMS HD Messenger Link

'standard definition' to 'high definition.' Now we cannot only read a license plate on a car traveling at 65 mph, we can see it from 2,000 feet in the air with greater brightness, clarity, and color definition—all unmanned."

## Aerial HD

## ESPN, ABC Take Home Sports Emmys

NEW YORK

ESPN and ABC Sports took home a combined total of 13 Sports Emmy Awards May 1, including a win in the first-ever new media category. The companies said this brings the overall total for ABC Sports to 155 Sports Emmys since they were first given in 1980, and 110 for ESPN during its 19 years of eligibility.

This year, ESPN had three of the four nominees in the new media category, "Achievement in Content for Non-Traditional Delivery," which was awarded to ESPN.com's "Off Mikes" featuring ESPN Radio's Mike Greenberg and Mike Golic.

Two ESPN networks were honored with Sports Emmys for signature shows: ESPN "SportsCenter" took home the "Dick Schaap Writing Award" for a piece written by Schaap's son, Jeremy, entitled "Finding Bobby



Fischer."

ESPN Classic's "SportsCentury" was named "Outstanding Edited Series," its fourth win in the category since the show's 1999 debut. ESPN Original Entertainment was also recognized with five awards, including two for "Cinderella Man: The James J. Braddock Story."

ABC Sports received three Sports Emmys, including the 15th victory for Monday Night Football's John Madden in the "Event Analyst" category and honors for the "Best of Winter X Games Nine" and the "Indianapolis 500: Speed City" tease.

ESPN took home two other technical achievement honors, both for the World Figure Skating Championships.

## Awards

## CBS Launches New Broadband Net

NEW YORK

CBS Corp. recently announced the launch of "innertube," a new broadband ad-supported channel offering a variety of free entertainment programming on the 'Net.

"This online channel presents exciting creative possibilities and great business opportunities for CBS," said Nancy Tellem, president of the CBS Paramount Network Television Entertainment Group. "Creatively, we want this platform to be a content playground where new talent and ideas are discovered, and proven talent can bring their passion projects—whether complementary or different to what's on the Network."

The service premiered May 4 with a lineup of origi-

nal series specially produced for Internet viewing, along with additional new shows that are companions to popular CBS fare. In the months ahead, "innertube" will also carry encores of CBS primetime shows and library content, which encompasses about 2,600 titles and 100,000 hours of programming.

The new service can be accessed at CBS.com. Initial plans are to stream three shows daily, with one new program being posted each weekday. Programming is archived and can be accessed with the "innertube" browse function.

## Internet TV

## 'Mother of TV' Dies at 98

BOUNTIFUL, UTAH

Elma "Pem" Farnsworth, aged 98 and widow of television pioneer Philo Farnsworth died April 27 in Bountiful, Utah.

Ms. Farnsworth is generally believed to be the first person to have her image transmitted live via an electronic television system.

She married Farnsworth in 1926. He gave the first demonstration of an all-electronic television system the following year. It was based on Farnsworth's "image dissector" pickup tube technology.

During the next decade, Ms. Farnsworth worked closely with her husband and brother, Clifford Gardner, in developing an all-electronic television system.

Philo Farnsworth died in 1971, and afterwards, Ms. Farnsworth devoted much of her time in making sure that he was given credit for his



Elma "Pem" Farnsworth at 37

invention. As a result of this effort, Farnsworth was honored in 1983 with a U.S. postage stamp recognizing his work, and was also inducted into the Inventor's Hall of Fame. In 2003, an Emmy award named after Farnsworth was presented for the first time—The Philo T. Farnsworth Award for Technical Achievement.

She published a book about her husband's work in 1990, "Distant Vision: Romance and Discovery on an Invisible Frontier."

## Passage

## Dielectric Marks DTV Antenna Milestone

RAYMOND, MAINE

Dielectric Communications, a provider of high-power broadcast antennas, has reached a company milestone by selling its 1,000th DTV antenna.

The milestone came when longtime customer Belo Corp. had Dielectric DTV antennas installed for each of its 19 stations located throughout the country.

Russ Abernathy, director of television and technology for WKNO-TV, a public broadcaster serving the Memphis, Tenn. area, said Dielectric's antenna installation and service was "first class."

Dielectric helped WKNO find a way to replicate coverage of its ana-

log transmissions on a DTV antenna. Dielectric installed a patented TUV Series antenna for the broadcaster. By allowing WKNO to place both a VHF and UHF antenna in the same aperture at the tower top, the Dielectric TUV Series allowed the station to line up its antenna patterns, the company said.

Dielectric vice president of sales, Jay S. Martin, said, "The milestone of supplying DTV antenna systems to 1,000 stations is a strong indication of the broadcast industry's commitment to Dielectric, something of which we are extremely proud and appreciative."

## DTV





## Now with Multibridge Extreme it's easy to edit in SD, HD and 2K film quality



Multibridge Extreme is the first bi-directional converter featuring built-in PCI Express. Connect to the new Mac G5 or PCIe Windows computers for the world's highest quality broadcast editing, effects and paint solution.

### Connect to any Deck, Camera or Monitor

Multibridge Extreme supports standard and high definition SDI 4:2:2, SDI 4:4:4 and analog YUV, as well as NTSC/PAL video in and out. Work with any deck, camera or monitor. Multibridge Extreme also features 8 channels of sample rate converted AES audio and analog stereo XLR audio in and out, combined with two channel RCA audio outputs, great for low cost HiFi monitoring.



### Advanced Digital Monitoring

Multibridge Extreme includes built-in dual link DVI-D and HDMI monitoring. With dual link DVI-D, Multibridge Extreme can even support 2K digital film editing on Apple's 30 inch Cinema Display, or use HDMI for connecting to the latest big screen televisions and video projectors.



### World's Highest Quality

Multibridge Extreme works natively in 4:2:2, RGB 4:4:4 or 2K digital film resolutions. Featuring the industry's only true 14 bit analog conversion – there's no higher quality solution.

### Converter or a Capture Card

When not connected to your Mac G5 or PCIe Windows computer for editing, Multibridge Extreme works as a bi-directional video and audio converter. Only Multibridge Extreme is two products in one, always adapting to your changing needs.



Multibridge Extreme  
**US\$2,595**

Learn more today at [www.blackmagic-design.com](http://www.blackmagic-design.com)

## WHYY Taps SeaChange for VOD

### PHILADELPHIA

PBS member WHYY is venturing into video-on-demand and pioneering a new business model for public broadcasting. In addition to repurposing its own programming for VOD, the station is acting as a service bureau for other PBS member stations entering the VOD arena.

"On-demand television is quickly growing into a important venue for intriguing, educating and inspiring public television viewers," said William J. Marrazzo, president and CEO at WHYY. "WHYY's on-demand content has increased dramatically since we started offering programs through On Demand from Comcast Digital Cable in 2004."

At the core of WHYY's VOD offerings is the QuickSilver Agility VOD workstation from SeaChange. The workstation, developed jointly with Anystream Inc., allows broadcasters

to produce standards-based VOD content without tying up non-linear editing suites.

In repurposing content developed for traditional broadcasting, WHYY was faced with adding new bumpers and breaks, as well as the addition of metadata, branding, underwriting acknowledgements and promos. Traditionally, this would have been accomplished in edit bays.

"Preparing content for on-demand distribution had been an exhausting, resource-intensive process and the SeaChange QuickSilver Agility VOD workstation removes the bottleneck," said Bill Webber, WHYY chief technology officer and vice president for content distribution.

VOD  
VOD

## Trailing Edge of Technology Celebrated

### HILLIARD, OHIO

Following on the heels of the super high-tech NAB is another annual conference devoted to slightly more mature technology, the "Early Television Convention" held in this western suburb of Columbus, Ohio.

The conference, organized by the founder of the Early Television Museum, Steve McVoy, is devoted to technical papers and presentations tracing and commemorating modern television's long history.

Among this year's presentations were "RCA and the Innovation of Electronic Television," 1923-1945 by Alex Magoun; The 1937 Russian TK-1 (RCA RR-359) Television Receiver by Darryl Hock; and a live demonstration of mechanical television by Peter Yanczer, featuring a 60-line mirror screw display device.

Donald McLean, author of "Restoring Baird's Image," was on hand to mark the 80th anniversary of John Logie Baird's first successful transmission of a television image. McLean has been involved in locating and restoring the world's earliest video recordings for more than 20 years. Baird did these on 78 rpm phonograph records in a process he termed "Phonovision" and patented in 1926.

"Baird claimed to be able to record both audio and video using vertical and horizontal recording head motion," said McLean. "This predates Alan Blumlein's first stereo recordings by eight years."

Baird was working with 30-line images and a four image-per-second field rate,

so the video signal produced could be contained with the limited frequency response of sound recording apparatus.

McLean used computer animation to represent the rather large video scanning and recording device used by Baird. The scanner's 30 lenses (one for each line) were mounted in a spiral on a large disk set into a wall, with a mechanical coupling to drive the disc recorder.

McLean explained why Baird didn't use his "normal" rate of 12.5 fps.

"We did the math," he said. "At four frames per second, there is a 40 G-force on the lenses. If [the scanner] were spun up to 12.5 fps, the force increases to 400 Gs."

McLean has used computer processing to "clean up" and stabilize images from all of the remaining recordings, and presented several examples of his work for the audience.

Baird apparently envisioned consumer acceptance of television recordings and also patented a self-contained video player and display device, the "Phonovisor."

The Early Television Conference is held each spring at the Early Television Museum, which features a very large working collection of mechanical and electronic television apparatus. For additional information, visit the museum's Web site at [www.earlytelevision.org](http://www.earlytelevision.org).

Retro-Tech



## LPTV/Translator Filing Window Moved

### WASHINGTON

The FCC has set June 19-30, 2006 as the new filing window for LPTV and TV Translator operations seeking digital expansion channels.

Previously, a window had been set for May 1-12, 2006 and included a freeze on LPTV, TV Translator and Class A changes and conversions.

That freeze is extended until June 30 in the new filing window notice. In the freeze notice, the FCC has made provision for stations demonstrating imminent disruption of service to request special temporary authority to continue operations.

During the filing window, any LPTV, TV Translator or Class A licensee or permittee may file an application for a second television channel to initiate digital broadcasting operations. The granting of the companion channel is conditional on return of one of the channels at a yet to be determined future date.

In lieu of requesting a second channel for digital television, current licensees and permittees may request a "flash cut" to digital operations on their present analog channels.

Applicants for companion channels must file a short-form application and accompanying engineering data, using FCC forms 346 or 301-CA, as appropriate. After the filing window closes, the commission will use this data to identify mutually exclusive applications. Applications that are deemed mutually exclusive will be notified and will have a limited period in which to use engineering solutions and settlements to resolve conflicts.

As the full power post transition DTV Table of Allotments is not finalized, it is possible that some of the channels, which now appear available for DTV expansion, may not be usable once the final allotment table is released.

### SENATE INTRODUCES TELECOM BILL

### WASHINGTON

Earlier this month, the Senate Commerce Committee drafted a bill proposing the most significant changes to the telecom industry since the landmark Telecommunications

Act of 1996.

The draft, which is given little chance of passing in this shortened election year Congressional session, includes provisions for video and audio flag content protection technology, network neutrality, municipal broadband, unlicensed wireless devices, child porn, emergency communications, increasing payments to the Universal Service Fund that provides financial support for broadband deployment in underserved areas, as well as new rules for the DTV transition.

Broadcasters oppose rules that would allow the use of unlicensed devices in so-called "white spaces," those portions of the broadcast spectrum not used by TV broadcasters. Although the proposed legislation does allow for such a provision, the bill also calls for the FCC to take steps to protect TV broadcasters and other licensed services "from harmful interference" caused by the use of such devices, including the establishment of a certification and testing process that would demonstrate compliance with FCC standards.

The bill also requires consumer electronics manufacturers to place labels on any TV sets currently on the market without a DTV tuner, warning that the set would no longer be able to receive over-the-air broadcast signals after analog TV is scheduled to be terminated in February 2009. In March, the Consumer Electronics Association proposed a voluntary labeling effort, but the proposed legislation would codify the practice. Another proposal strongly opposed by broadcasters would allow cable operators to down-convert broadcasters' DTV signal.

The Senate plans to hold hearings on the bill this summer. The bill joins similar proposed telecom reform legislation in the House, which focuses primarily on video franchising.

Federal  
Federal  
Federal  
Frequency





we're televisionaries™

Whether it's advanced compression,  
on-demand or interactive television,  
we deliver the technology and expertise  
that's moving digital media forward.

**TANDBERG** television



HD, IPTV, mobile TV – the broadcast digital media world is rapidly evolving with new formats and new ways of creating, packaging and delivering “content everywhere.”

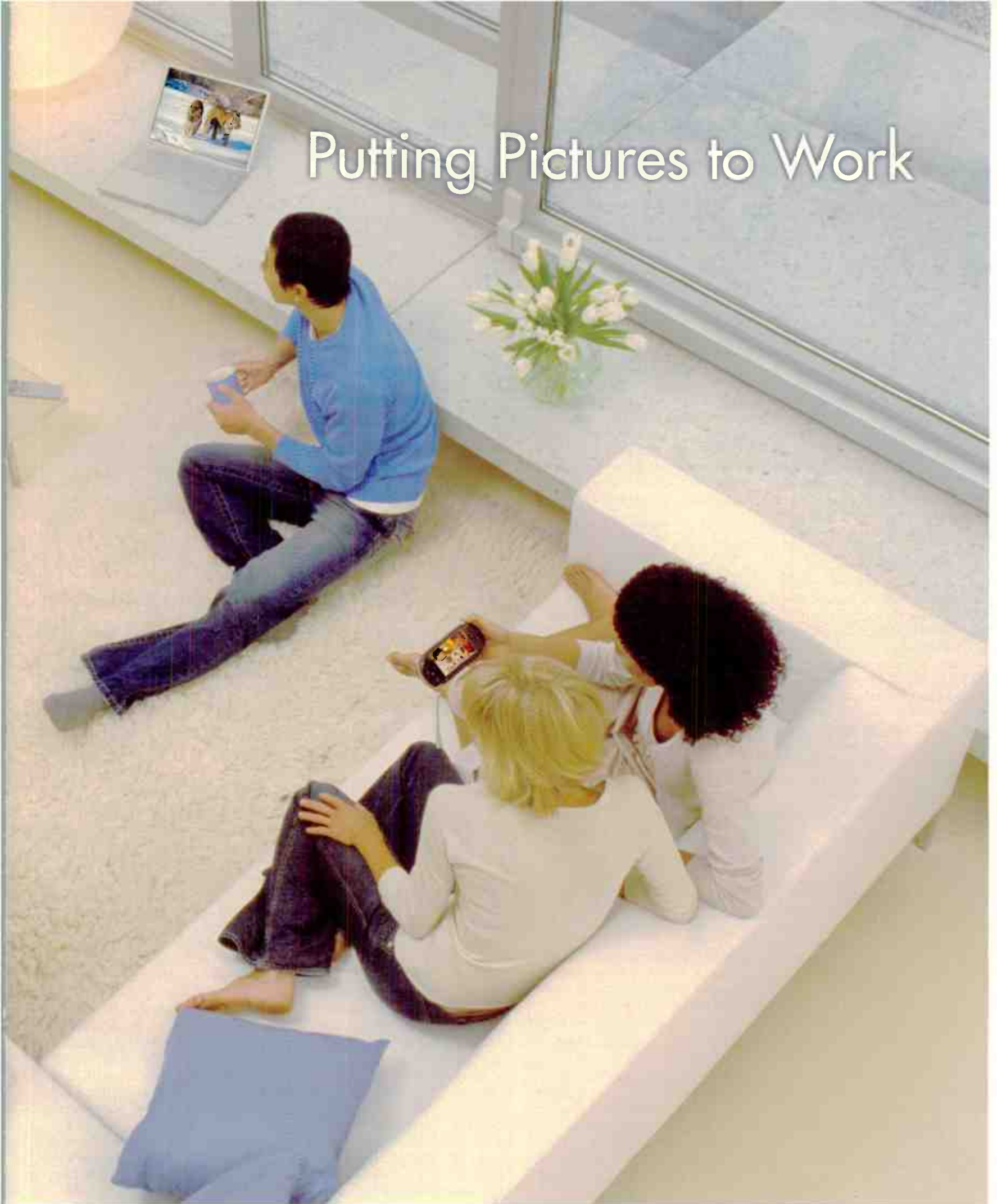
Increasing consumer choice means new opportunities for broadcasters and content owners to put their pictures to work and generate extra revenue.

The challenge is to make evolving technology work for you profitably and in harmony with your existing plant.





# Putting Pictures to Work



Putting Pictures to Work™

**SNELL & WILCOX**



# InfoComm Expands A/V reach

## Annual confab to include behind-the-scenes tour of SeaWorld

by Susan Ashworth

ORLANDO, FLA.

They are scorned A/V geeks no more. In fact, the annual gathering of professionals from the audio and video industry is expected to be a throng of 75,000 strong, who will descend on the Orange County Convention Center in Orlando, June 3-9. They come in part to celebrate an industry that has survived the instability of sluggish sales and a recovering national economy, due in part to the breadth of the technology's reach across myriad markets: corporate, education, government, health care and beyond.

"This is the place for content, education and networking for the A/V industry," said Jason McGraw, senior vice president of expositions of InfoComm.

The 2006 convention will illustrate just how far the A/V industry has evolved, with 120 sessions on issues such as business practices and education, and 775 exhibitors on more than 425,000 square feet of exhibition space. The show is also an international fête, McGraw said, as attendees from 80 countries are expected to attend.

### APPLICATION SHOWCASE

The show is best described as an "application showcase," McGraw said, as well as a place to see how the professional audio/video industry has undergone a horizontal growth over the last few years. "We've seen a lot of new market segments appear," he said. "We've gravitated toward the integration of [new and existing] technology solutions for those different market segments," such as homeland security, he said.

Take for example the rapid expansion of digital signage. It's no longer uncommon to see a three-foot-long electronic sign—beckoning a customer to try the coffee or buy one and get one free—in both a small mom-and-pop stores as well as large retail chains.

"No matter where you have A/V, you use the same technologies," he said, which helps account for the industry's continued growth and expansion.

The industry has also seen increased interest from some traditional high-end broadcast equipment manufacturers.

Grass Valley is one company that has expanded its presence at InfoComm over the last few years, and will have a significantly larger booth with new product lines specifically targeted toward the prosumer A/V industry at InfoComm06, said Mike Wolschon, director of strategic marketing for Grass Valley.

"Pursuing the pro AV industry has been a strategy under development for some time," he said. "When we decided to enter this market, we already had a lot of higher-

end knowledge about how the production process works. We can now bring the same high-end user interface and workflows to this market at a lower price point."

The company hopes to see a 40-percent increase in revenues from the A/V market over the next four to five years. As part of its ongoing interest in the A/V industry, the Grass Valley also will continue to look for strategic partnerships that bolster the company's role in this marketplace, such as its recent acquisitions of ParkerVision and Canopus, which both offer a line of A/V prosumer-friendly solutions.

### FOCUS ON AUDIO

Over the last year the A/V industry has also seen particular growth in digital content creation, lighting and staging, and

InfoComm will also usher in a new host of sessions and conferences, including a revamped lineup of audio events, featuring 12 audio demo rooms highlighting technology from companies like JBL, AKG, Soundcraft and others. An audio pavilion will showcase the offerings of more than 250 companies including Sennheiser and Telex Communications. Also new this year: a four-day audio conference by Synergistic Audio Concepts, who will cover the fundamentals of room acoustics and sound system design.

The organization is also offering new InfoComm Academy courses in areas such as AV/IT, homeland security and project management, designed to offer new skills and provide certification testing to beginning, intermediate and advanced professionals.



InfoComm will offer its attendees a tour of "Blue Horizons" which uses motorized rigging to allow for acrobatic tricks over the water.

HD conferencing. The industry is also seeing a boom in the integration of A/V and IT networks, creating a new breed of "networkable systems that can be controlled and accessed remotely," McGraw said.

McGraw also sees the boost in digital signage as a sign of things to come. "Many companies are moving away from traditional print [advertising] toward digital, and tying many of those technologies into IT networks," he said.

Attendees will get a glimpse of what the future holds from seminars such as "Introduction to Streaming Media Video Production Strategies" and "Migration from ISDN to IP," on topics that range from audio and digital signage to networking and project management.

programming, where designers must ensure their work is appropriately integrated while simultaneously allowing the end-user to easily navigate the system.

An expanded video focus includes the Large Venue Display Gallery, the Digital Signage Pavilion, the Digital Content Creation Pavilion and the Projection Summit, which will look at the newest technology advancements and market forces impacting the large-screen display market.

### IN ON THE ROUNDTABLE

Eschewing the typical keynote address, attendees can instead sit in on the InfoComm manufacturers forum, a roundtable discussion about the state of the industry with CEOs from AMX, Barco, JVC, Meyer

Sound and Tandberg Television.

Attendees will also be able to take advantage of the collocated EduComm conference, a national education conference, whose keynote speaker will be Steve Wozniak, cofounder of Apple Computer.

For the religious community, a "Technologies for Worship" conference will feature a pavilion on the exhibit floor with mixing classes, location lighting sessions and discussions on issues such as creative uses of broadband distribution for worship.

InfoComm also is partnering with the ESTA Foundation this year to provide a round of workshops and demonstrations to focus on issues such as rental and staging management and operations. Designed to illustrate safe rigging practices, these sessions will show how truss, motors, lights,

**"We've seen a lot of new market segments appear... We've gravitated toward the integration of [new and existing] technology solutions for those different market segments."**

**—Jason McGraw, Infocomm**

And InfoComm is introducing a new system programming and GUI design gallery this year, which allows members to delve into complex system design and programming using 15-inch Creston touchpanel computers. The gallery is designed to give visitors insight into the confusing world of design and

line arrays, LEDs and safety harnesses are used to prepare for a big event. Other sessions include "Working Successfully with Labor" and "Entertainment Electrical Power Distribution & Safe Practices."

One of the key draws of the convention is the series of AV Tech Tours that show the inner A/V workings of various local locales. Attendees will get a behind-the-scenes look at how cutting-edge technology and the antics of sea animals are combined into daily exhibitions during a tour of SeaWorld Orlando. The tour will include SeaWorld's Blue Horizons event, a show that uses motorized rigging to allow for acrobatic tricks over the water. Attendees will also get a first-hand look at the A/V magic put to work in the Cirque du Soleil La Nouba show. This non-traditional circus troupe uses a range of computer-controlled technologies through SeaWorld's audio, lighting and automation department. A third tour will take InfoComm attendees through the University of Central Florida's Rosen College of Hospitality Management where they will get a tour of the campus' interactive television capability, multimedia equipment, digital signage, wired and wireless networking, and VoIP system.

More information on InfoComm06 can be found at [www.infocomm.org](http://www.infocomm.org). ■



# ***We Didn't Just Raise The Bar***

## ***WE CHANGED THE WAY YOU WILL THINK ABOUT ROUTING AUDIO FOREVER***

### ***Distributed Thinking, One Solution***

The Cheetah DRS, PESA's newest multi-format audio router, uses patent pending distribution technology to route audio over Gigabit Ethernet with either a single CAT-5 or Fiber cable for multi-frame connectivity. This creates a Distributed Routing System (DRS) scalable from 64X64 (occupying 1RU frame in one location) up to 2048X2048 (in 36RU of space in one or many locations).

Cheetah DRS allows broadcasters to place input frames in equipment racks near satellite ingest from receivers, VTRs, or servers, while placing output frames closer to studio gear for distribution into audio consoles, or master control. This keeps cable runs extremely short, preserves signal quality and reduces cable costs, time of installation and maintenance. Additional inputs or outputs can be added by changing cards or increasing frames in any location. Format flexibility in the Cheetah DRS allows a mix of AES and Analog, Synchronous and Asynchronous audio, with support for Dolby-E.

### ***Simple, Fast, Reliable***

Cheetah DRS frames supports redundant power, redundant control, and quick access front-loadable, hot-swappable matrix cards.

### ***Versatile Connectivity***

Frames are available with a wide variety of interconnect options. Choose from BNCs for 75 ohm AES, as well as ELCO or DB-50 connectors for analog audio or timecode. RJ-45 connectors are used for optional RS-422 machine control. A 6-pin terminal strip version is also available.

***The Clear Path for Clean Audio Distribution: [www.pesa.com/drs](http://www.pesa.com/drs)***



**Winner of  
TV Technology's  
2006 STAR Award**



**Winner of  
Television Broadcast's  
2006 Top  
Innovation Award**



24 Woodbine Ave • Suite 16  
Northport, NY, USA 11768  
Tel: +1 (631) 912-1301  
Fax: +1 (631) 912-1302  
Toll Free USA: 800-328-1008  
[www.pesa.com](http://www.pesa.com)



# Rehr Looks Ahead; Honors Broadcast Vets

## Big Three anchors receive Distinguished Service Award

by Susan Ashworth

Addressing the packed house at the NAB2006 All Industry opener, lobby chief David Rehr said he wanted to avoid talking about past problems and focus instead on the direction the NAB should be heading.

"We need to move away from being seen as an organization that's always on the defensive," Rehr said to immediate applause. "We need to be seen as one that's on the offensive. We shouldn't be protecting the status quo, but need to be an organization that embraces change."

"We can transform our reality," he added, "and we need to start today."

Rehr readily admitted the broadcast industry was facing its share of competition, from cable and satellite to the Internet. But broadcasting has a solid base of strength that the industry needs to exploit and build upon. "We still have the eardrums and eyeballs," he said, and the industry can take even further advantage of that with the onset of HDTV and HD Radio.

He also gently chided the audience

about reluctance to change.

"For the first time in the history of media, the customer is in charge," referring to the whenever and wherever proliferation of media. But rather than fearing that evolution, the industry should be excited about the opportunity, he said, suggesting a five-pronged approach beginning with exploiting every new technology on every new platform available.

**"TV and radio  
were wireless  
before it was cool."  
—NAB President and  
CEO David Rehr**

"Broadcast signals need to go everywhere, to everyone, to every device," he said. "After all," he said, "TV and radio were wireless before it was cool."

The industry also needs to more heavily promote the benefits of DTV and HD Radio. Both TV and radio are at the verge of the greatest transformation in history, he said, and many Americans don't truly understand what either

"I think today's broadcasters will open the windows for my children as they did for me," he said.

Three of the best-known of those broadcasters were then honored by Rehr as he awarded the NAB Distinguished Service Award to CBS anchor Dan Rather, NBC anchor Tom Brokaw and the late ABC anchor Peter Jennings. Having largely defined evening news



NAB President David Rehr with former NBC anchor Tom Brokaw and former CBS anchor Dan Rather at the NAB2006 Opening.

of these technologies mean.

"It's our responsibility to let them know the benefits, and not leave it to our government, our competitors or the guy who sells TVs at Best Buy," he said.

In addition to encouraging competition with cable, satellite and telecom, and better empowering parents to control content that comes into the home, Rehr said the industry also must adopt a proactive attitude with the local community and the government.

"We need to step up our advocacy to educate local communities and Washington about our work," he said.

As a young child in Illinois, Rehr remembers how his local radio and TV broadcasters opened up the world to him—introduced him to the big city of Chicago, the state of Illinois and eventually the rest of the world.

for the last 20 years for millions of Americans, the three men were honored by the NAB for their significant and lasting contribution to American broadcasting.

"I've seen many changes in broadcasting, and broadcast news again finds itself in a period of change," Rather said. "That's good, and inevitable. But one thing that hasn't changed is that news needs to serve the public interest as its primary goal. The faces will change, but the commitment to the news will remain the same."

### NEW IS PARAMOUNT

Upon accepting his award, Brokaw recalled the event that changed the life of his South Dakota farmer grandfather: owning a radio. It gave him access to life outside his hardscrabble farm, "and made him a citizen of the world."

Though there are now countless new tools to receive news of the world, it's the integrity of the news that matters more than any device, he said. The tools are but an extension of news itself.

"There's no delete button for hate or poverty, no help button for a disaster," Brokaw said. It is the news itself that must remain paramount.

Both Rather and Brokaw took time to honor the late Jennings, who was awarded posthumously with the Distinguished Service Award, and was recognized by his colleagues for his contributions to broadcasting as well as his humanitarian efforts. ■

© NAB2006



**vitecs™ General Purpose Control Panels with Interfaces**

**Introducing the Hottest, and the Coolest Control Panels**

- ◆ Multiple Vendor Control
- ◆ Ingest Frame Sync QC
- ◆ Full Router Integration
- ◆ Channel Based Organization

**Videoframe™**  
Videoframe, Inc. P.O. Box 1991, Grass Valley, CA 95945  
Tel: 530-477-2000 www.videoframesystems.com





## **More than just sophistication.**

When it comes to a peerless weather presentation, Baron Services is the absolute leader. No worries, though. While Baron's storm tracking algorithms and forecast modeling are the most accurate and sophisticated on the market, we have designed them to be simple to install. Easy to use. Graphically stunning and lightning fast, so you'll always be ready to break in when severe weather breaks out. Setup woes? No way. Our experienced staff takes care of installation and can provide complete on-site training. We've even turned customer service into an advanced technology. Funny how Baron's sophistication is the very thing that makes your job so easy.

**Expect more. Demand more. Get more.**

**The Only Complete Weather Company**



**WxWorx**



Call 256-881-8811 for an analysis.  
Find out how much money Baron can save your station.  
[www.baronservices.com](http://www.baronservices.com)

# NHK Inspires Awe With Ultra Hi-Definition

Tricked-out system was the hit of the show floor

by Craig Johnston

Just when you thought you were getting the hang of HDTV, Japan's NHK brought ultra high-definition TV to NAB. It was worth seeing for many reasons, primarily because it was not possible.

How was it not possible? Well, it's a 4,320 scanning line system. They don't make imaging chips for that, there is no server made that can record and play back that rate of uncompressed data, and there is no projector available for displaying such an image.

But it was there, four times the horizontal resolution of today's HDTV; four times the vertical resolution; and 16 times the resolution in all. You could fit a 4 x 4 array of HDTV pictures on the 400-inch diagonal screen. How did they do it? Basically, they used two of almost everything.

## TWO OF EVERYTHING

The ultra high-definition camera had a set of 8 megapixel, 2,160 scanning line red, green and blue CMOS sensors, and a second green CMOS sensor. The second green chip was offset one-half a pixel diagonally, which allowed the camera to deliver all 4,320 scanning lines. Do you follow so far?

From the camera head, 16 HD-SDI signals were sent through an optical transmitter and then on to a pair of top-of-the-line universal data recorders, 8K digital cinema UDR-20S/20E recorders. Those had to play



back in sync during projection.

NHK used the same offsetting trick with the projectors. There are two of them, one delivering the red and green pixels, and a second delivering the two green pixels to the screen. The second set of green pixels was offset diagonally by that same one-half pixel. Voila, a 4,320-line system.

All the equipment, including a prototype camera, samples of the CMOS sensors and other hardware, were available on display in a 12-minute presentation.

"It's fantastic," said FCC Commissioner Deborah Taylor Tate. "I don't even have HDTV yet, and this is ultra high-definition." She said her

Above, a scene from the ultra HD theater, attended by more than 6,500 folks at NAB2006; Right, the ultra HD camera had a set of 8 megapixel, 2,160 scanning line red, green and blue CMOS sensors, and a second green CMOS sensor that was offset one-half a pixel diagonally.



**"It's fantastic. I don't even have HDTV yet, and this is ultra high-definition."**

**—Deborah Taylor Tate, FCC Commissioner**

favorite scene was the sea of sunflowers.

The scene was amazing, with no artifacts apparent. A couple of scenes later, there seemed to be an almost 3D effect. In addition to the pre-produced material, NHK put an ultra HD camera on the roof of the Las Vegas Convention Center roof to add a live picture to the mix.

## 22.2 AUDIO

Sound was not an afterthought at the ultra high-definition presentation. It utilized the world's first 22.2 multi-channel sound system, which consisted of three vertical layers of loudspeakers producing surround sound, which in turn allowed viewers seated anywhere in the theater to experience the same high-quality sound.

More than 1.5 million people saw ultra high-definition in Japan at the 2005 World Exhibition, but NAB was its first stop outside Japan.

Don't go shopping for ultra high-definition cameras, transmitters or home sets right away. NHK officials said ultra high-definition's rollout to the masses is about 20 years away. ■  
© NAB2006

# Go Native

infoComm  
booth #3927

With 1920 x 1080



V-R231P-AFHD  
Price: \$5999

Marshall's new 23-inch High Definition monitor let's you GO NATIVE with 1920 x 1080 digital and analog video. For under \$6K you get a loaded package with inputs for HDSDI/SDI, Analog Component YPrPb, S-Video, Composite, XGA from your computer and even DVI-I for HD video or computer generated images. All the features you need for HD production, like frame markers, safe area, adjustable color temperature and Pixel-to-Pixel native display for any video format are included and can be directly accessed without menus. All of this is in a durable all metal compact package with added scratch resistant polycarbonate screen protection that can be rack mounted or used on a desk top.

**Marshall  
Electronics**

Tel.: 800-800-6608  
Fax: 310-333-0688

**LCDracks.com**



# NHK Looks to the Future of High-Def

Developer of technology has high hopes for next-generation system

**A**s attendees flocked to NHK's Ultra-High Definition theater and 3-D high-def demonstrations, TV Technology Editor Tom Butts spent some time discussing the project and its implications for the future of HDTV with Dr. Yuji Nojiri, director of the Advanced Television System, for NHK Science & Technical Research Laboratories in Tokyo.



Dr. Yuji Nojiri, director of the Advanced Television System, for NHK Science & Technical Research Laboratories.



**TV TECHNOLOGY:** What makes this camera unique?

**NOJIRI:** The only difference is that this is an 8K camera with 16 HD-SDIs coming out, which means that it's 16 times the resolution of standard HDTV. Standard HDTV's data rate is 1.5 Gbps, this is 24 Gbps, so you can imagine how large the data rate is.

**TV TECHNOLOGY:** Please explain the development of this camera.

**NOJIRI:** This particular model of the ultra high definition camera was developed in 2004 by NHK. This is the second-generation, the first was developed in 2000. NHK is the Japanese public broadcaster and has been working on ultra high definition since 1995.

**TV TECHNOLOGY:** What type of chips are you using?

**NOJIRI:** The first generation camera used a CCD, but this second-generation camera uses a 1.25-inch CMOS chip. With CMOS, you can build in all kinds of different functions within the chip. It's also more efficient.

**TV TECHNOLOGY:** And the lens?

**NOJIRI:** The lens is a 5x zoom from Fujinon. At first, we didn't think we would need a zoom lens because we thought that since the screen was so large, we would just have a fixed shot. But the production department said 'we've got to have zoom lenses, we've got to go close and tight and wide with subject matters.' This is a total prototype; there are only two in the world.

**TV TECHNOLOGY:** How much

does the camera weigh and what's next?

**NOJIRI:** The camera weighs 80 pounds with the lens. As for the future, currently we're using four 8 million megapixel image sensors on this system. In order to achieve the full 8K spec, we need to have a pixel resolution of 32 million megapixels, so in the future, we hope that the other systems would keep up with the capacity of the camera to keep the full spec.

Hopefully, in the near future—about 10 years—we'll be able to condense the size of the camera and even use a single lens reflex type system between the lens and the body so that we can really cut down on the power consumption and data that it can process.

**TV TECHNOLOGY:** Besides Fujinon, who else did you partner with?

**NOJIRI:** NHK initially spearheaded this technology and developed it from scratch. Since we're not a manufacturer, we need all the help we can get. Ikegami helped out on the camera body, and Astro Design helped out on the transmission system, but it's essentially NHK technology.

**TV TECHNOLOGY:** What's your reaction to how attendees have responded to the NAB demonstration?

**NOJIRI:** This is the first time ever that this camera and display system has been shown outside Japan, so we were hoping just to make the industry aware of the system. But in contrast, it was enormously popular, more than what we expected in terms of feedback and reaction. People were very astonished by the images. [As of Thursday morning], we've had about 6,500 people view the demonstration.

## Broadcasters Trust Telecast Fiber for ALL their Fiber Optic Needs.



### ADDER and ADDER II

Whether you need analog audio, AES, intercom or even A-D and D-A signal conversion, there is an Adder system ready to handle any audio challenge. Up to 256 channels per fiber, at 24-bit resolution, with optical redundancy for quiet, reliable sound.



### SHED/HDX and COBRA

For Triax and hybrid cabled cameras, we have solutions to liberate you from your heavy copper. SHEDs eliminate your costly hybrid cables on HD cameras, while Cobras replace triax on HD or SD camera systems...with ten times the distance.



### VIPER I / SIDEWINDER

For 14 years the Viper and Sidewinder have supported ENG/SNG applications around the globe. The reel-mounted Sidewinder and Viper Mussel Shell are immediately familiar as the workhorse systems that have proven themselves in the most extreme conditions...day in and day out.



### VIPER II

With small "throw down" modules that can be converted to rack mount, the Viper II is an expandable system that grows with your facility. Modules range from video/audio to Ethernet to robotic HD/POV, for incredible flexibility using simple building blocks.



### COPPERHEAD HD/SDI

Our camera-mounted CopperHead makes light work of a wide range of applications, from news coverage to digital cinematography. Turn your ENG camera into a remote production camera, and avoid the cumbersome, expensive triax backs and base stations.



### DIAMONDBACK II

Picking up where its predecessor left off, the DBII now offers 8 channels of broadcast-quality NTSC/PAL video on each wavelength. With optional audio and CWDM technology a huge backbone can be implemented on a single optical core.



Save time on your event production schedule. On a single lightweight cable we support all your broadcast signals from the field and the booth to the truck. From Telecast, the leader in fiber for television broadcast production.



**Telecast**  
Fiber Systems, Inc.

(508) 754-4858

All products mentioned herein are trademarks of Telecast Fiber Systems

[www.telecast-fiber.com](http://www.telecast-fiber.com)



# Digital Cinema to the Rescue

Filmmaker and theater owner rep see resurgence of big screen attendance

by Susan Ashworth

All the stars are aligned and 2006 is set to be the year of digital cinema, according to John Fithian. After spurious debate over standards, queries over theater participation and questions over the financial implications, the head of the National Association of Theatre Owners believes the long-awaited technology is about to break through.

"This audience this morning shows that digital cinema is real and is happening," Fithian told the packed audience during his NAB digital cinema keynote speech.

Producer/director James Cameron echoed that sentiment with a bit more punch: "Humans don't like to change," he said of the film industry's initial reluctance to convert to digital cinema. "And while the system may not be broke, it could sure use some fixing."

Digital cinema, both gentlemen agreed, has the power to help transform a flagging industry by bringing

audiences back into theaters. There are approximately 400 digital cinema screens currently operating in the United States, a number that is expected to grow to 1,500 installations by year's end.

Not only does digital cinema offer vastly improved visual quality, it also offers the promise of reduced shipping costs—up to \$1 billion in a year for studios, Fithian said—and the flexibility to offer alternative programs such as concerts or church gatherings.

## RE-EMERGING 3D

"The year 2006 will be a big year for the industry because the technical specification work is accomplished, digital cinema is a better visual experience on the screen, and the business models are finally there," Fithian said.

Digital cinema also can help the industry compete with the myriad outside entertainment options for the younger generation, such as iPods, portable DVD players and the like, Fithian said.

That's not to say the road ahead looks clear. "The worst thing that can happen to us is that the technology fails and we put a dark screen up in front of audiences," he said.

"We're still in the midst of a beautiful chaos" that needs to be resolved.

For Cameron, digital cinema brings with it an ever more compelling audience draw: the re-emergence of 3D. Far from the crude, eye-aching 3D films that burst on the scene in the 1950s, today's 3D technologies are now a crisp, clear, enthralling entertainment experience, thanks to the refined technologies available via digital cinema.

Rattling off a handful of productions that are set to be shot in 3D—from the Disney release "Meet the

**"3D digital cinema is not a fad that is going to bloom and die."**

**—James Cameron, director**



James Cameron

Robinsons" to New Line Cinema's "Journey 3D" to possible re-releases of Cameron's own "Titanic" and "Terminator 2" films—Cameron said the future of digital cinema should be built around 3D.

"Ignoring the nattering nabobs of negativity...who are afraid of change," Cameron said, "3D digital cinema is not a fad that is going to bloom and die. I don't want that grand, visionary, transforming event of movie-watching to become a thing of the past. Digital cinema can prevent that." ■

© NAB2006

## Home Theater Audio Highlighted

Television 5.1 audio is coming of age

by Andrew Morris

The National Association of Broadcasters kicked off the NAB2006 Broadcast Engineering Conference with a keynote speech by Tomlinson Holman, professor of Cinema-Television and Electrical Engineering at the University of Southern California.

Introduced by Lynn Claudy of the NAB, Holman discussed the expectations placed on broadcasters and emphasized the importance of surround sound and high-quality audio in a home theater system.

## INDUSTRY PIONEER

Holman worked for Lucasfilms for 15 years and developed the THX sound system. In his introduction, Claudy said, "Literally billions of dollars of home consumer equipment carries Tom Holman's initials on the front panel—Tom Holman's Experiments or THX."

Holman's keynote was entitled, "How Home Theater Raises Expectations of Broadcasters," but he said during his talk that perhaps it should have been titled "...Expectations from Broadcasters"

since home theater systems are beginning to raise consumer expectations.

Holman cited a number of studies and statistics that show how pervasive home theater is becoming in U.S. homes and how important audio is to those who choose to install home theater systems.

## MORE PERVERSIVE

Holman answered the question, "What is Home Theater?" by using the definition currently offered by the Consumer Electronics Association. CEA defines home theater as a system with a greater than 27-inch diagonal display, a surround sound receiver and speakers. As of today about 35 percent of U.S. households are now equipped with home theater systems, said Holman.

"People who are designing sound and picture for the proverbial 13-inch or 19-inch television with a 3-inch speaker are surprised to find that 35 percent of households have a larger television display and some form of surround sound," Holman said.

"For home theaters, when surveys are done, it turns out that movies are the killer app. In these surveys it is interest-

HOME, PAGE 22

**get on the right track**

**TeleGlide Camera Trolley System**

- Smooth, quiet and fast camera trolley operation
- Eliminates the need and extra expense of multiple cameras, lenses and P/T heads
- Dual rail system with multiple trolleys available
- Track can be cut and curved, and mounted on the floor, wall or ceiling

**Telemetrics Inc.**  
CAMERA CONTROL SYSTEMS

www.telemetricsinc.com



My production.  
My NEC flat-panel displays.

Get the most from your digital IT infrastructure with the industry-leading technologies and support of NEC Display Solutions. Transitioning from a CRT-based environment doesn't have to be complex. Count on NEC for display expertise, proven solutions and the right LCDs for your critical control room applications. The NEC MultiSync<sup>2</sup> Large-Screen LCD Series and Professional Series feature a range of screen sizes, exceptional scaling, superior color accuracy and black level adjustment. Our Professional Series even includes digital CableComp<sup>TM</sup> for no-hassle long-cable runs, a 12-bit LUT for better color gradations and ColorComp<sup>TM</sup> for consistent white uniformity levels. What's more, you'll soon be able to upgrade the Large-Screen Series to SDI for even more cost-effective versatility.

Yet another way we're working to be your display solutions partner. Learn more at [www.necdisplay.com](http://www.necdisplay.com) or call 866-NIEC-MORE.



**NEC**  
NEC Display Solutions

MultiSync is a registered trademark, and CableComp and ColorComp are trademarks of NEC Display Solutions of America, Inc. © 2006 NEC Display Solutions, Inc. All rights reserved. Simulated images in monitors.

World Radio History



# Martin Sees Multicast Must-Carry in Play

FCC chairman emphasizes local opportunities for broadcasters

by Leslie Stimson

FCC Chairman Kevin Martin described the commission's 2005 denial of multicast DTV must-carry as a "missed opportunity," telling broadcasters, "If a majority was willing to look at that, I think that that would be an important opportunity before 2009."

Martin's remarks were made during a one-on-one interview with NAB Joint Board Chair Bruce Reese, president and CEO of Bonneville International, during the annual FCC Chairman's Breakfast, sponsored by AG Edwards.

It was February 2005 when the FCC denied multicast must-carry under Chairman Michael Powell, with then-Commissioner Martin providing the lone dissent.

**"You're the one consumers**

**will complain to."**

**—NAB Joint Board Chair**

**Bruce Reese to**

**FCC Chairman Kevin Martin**

**regarding the 2009**

**analog television shutoff**

During the ruling, Martin said, "... I think the record is replete with examples of the free programming services that broadcasters want to be



NAB Joint Board Chair Bruce Reese and FCC Chairman Kevin Martin

able to provide, including more local news, local weather, local sports, coverage of local elections, and government proceedings and foreign-language programming."

## CLARIFY RULES

During the panel discussion at NAB2006, Martin said that one major goal of the FCC is to clarify the rules related to the transition to digital, for both TV and radio.

After all, Reese said, "You're the one consumers will complain to," referring to the industry's ongoing goal of educating consumers about the DTV transition before the 2009 analog cut-off date.

On the radio side, two issues were addressed. The first was the commission's treatment of satellite radio as those licensees creep toward offering local services. The radio industry is especially worried about satellite radio getting local advertising revenue, Reese said.

Martin said satellite radio is envisioned as a national service.

"The commission has been diligent as far as the satellite providers, to put conditions on their translators," Martin said. "We've put conditions on them in the past and that will continue."

## SATELLITE RADIO

Satellite radio provides a valuable service and will continue to be in demand, Martin believes. Broadcasters' strength, however, is that they provide a local service. "We don't want everything to turn into a national service," Martin said.

The other radio-specific issue discussed was the "thousands," accord-

ing to Reese, of FM translator and low-power FM applications pending at the agency, and whether AMs that have reduced power at night could apply for some of these translators to fill in their coverage areas.

The FCC is balancing the needs of competing applicants for the same spectrum, said Martin.

"All of these are opportunities for listeners to get information from one of these different sources. When you have competing demands for spectrum, the commission has to prioritize them. Hopefully there will be a way to address it that balances all of those services," he said.

## IN THE PUBLIC INTEREST

Reese also asked the chairman to expand on his thoughts about public interest issues related to broadcasters.

Martin said broadcasters have historically done a good job in this area.

"I have great confidence broadcasters have been giving a lot of service to their local communities," Martin said. "Broadcasters would be better served to collect that information in a systematic way. It would help demonstrate to the public what you are doing, not on an individual basis but on a collective basis."

Reese said such efforts have been met with skepticism in the past, and Martin said providing greater detail about the broadcasters' public service efforts would help.

Martin said he had no insight as to when Congress would move on the confirmation of nominee Robert McDowell as the fifth commissioner.

■ © NAB2006

NOW SHIPPING

INCLUDES LYNX 5.1

**More control. Less wiring.**

Expand the capabilities of the GSC3000  
with the **G-LINK™**  
G-BUS EXPANSION SERIES

AC-8 REMOTE OUTLET CONTROLLER

GX-128 INTERFACE FOR X10 AUTOMATION

GT-4 REMOTE TEMPERATURE MONITOR

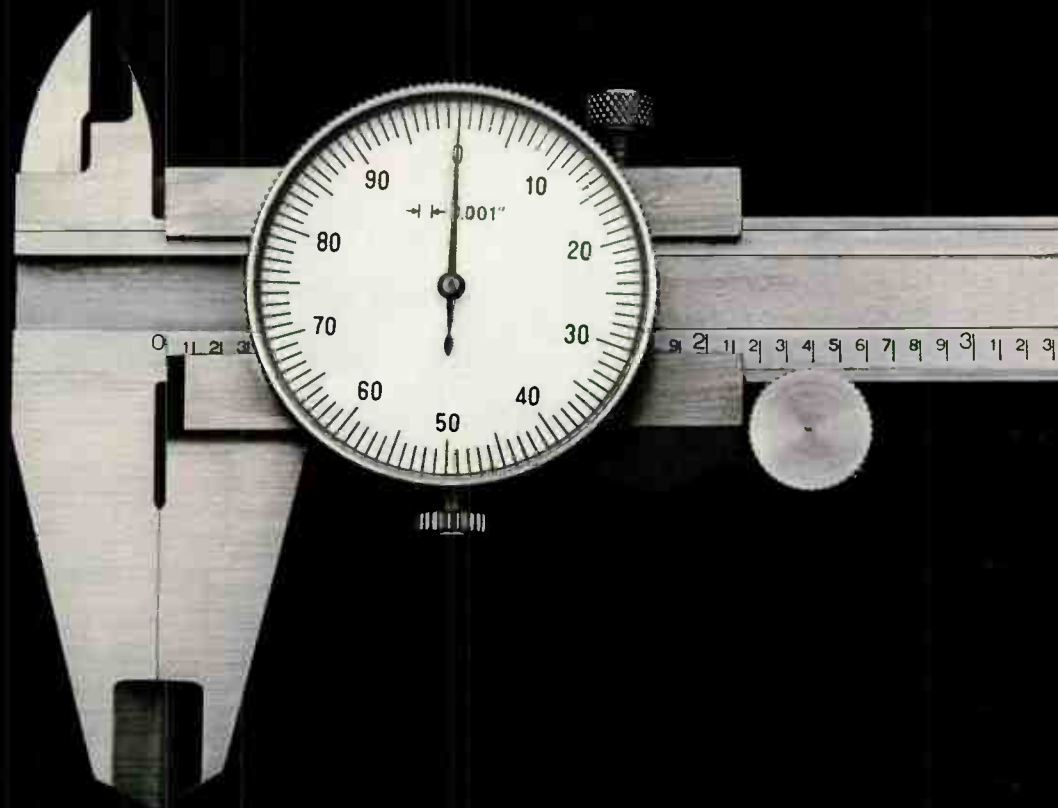
AC-4 REMOTE OUTLET CONTROLLER

- Convenient control of 120VAC equipment
- Monitor remote temperature conditions
- Control X10 devices
- And more...

Visit [www.burk.com/glink](http://www.burk.com/glink) for details on the entire G-Link series.

7 Beaver Brook Rd., Littleton, MA 01460 • 800-255-8090 (Main Office)  
800-736-9165 (Radio Sales) • 866-273-5276 (TV Sales) • [WWW.BURK.COM](http://WWW.BURK.COM)





## THE DIFFERENCE BETWEEN TOLERANCE AND ZERO TOLERANCE

AS PASSIONATE AS YOU ARE

**AJA**  
VIDEO SYSTEMS

TO LEARN MORE ABOUT THE DIFFERENCE OUR  
SD, HD, AND AUDIO CONVERTERS CAN MAKE,  
VISIT US AT [WWW.AJA.COM](http://WWW.AJA.COM).

World Radio History



# Accord Characterizes FCC Face-off

Discussion topics covered localism, new distribution platforms and RF

by Deborah D. McAdams

This year's annual face-off between FCC commissioners didn't actually create a lot of sparks. The two Democrats and one Republican who participated were pretty much on the same page.

The commission's two Democrats, Jonathan Adelstein and Michael Copps, and Republican Deborah Taylor Tate, all riffed on the power of localism intrinsic to broadcasting. Regarding the future of the business in the face of burgeoning distribution platforms, Adelstein cited localism as the ultimate differentiator in broadcasting.

"Young people have a whole new attitude about media," he said. "There are certain key elements that broadcasters have that no one else can replicate," in particular content. "The secret key is localism. No one else can do local content."

Copps said everyone on the commission was "deeply dedicated to localism," and that he'd like to see it

rolled into the rewrite of the FCC's media ownership rules.

"We'll have to tee up a new proceeding on that," Copps said. "I think we should look at it comprehensively, not piecemeal," something earlier suggested

mission. The FCC has been short a commissioner since Kevin Martin took over the chairmanship a year ago. The nomination of Republican telecom attorney Robert McDowell awaits approval on Capitol Hill.

**"We're not ready for the next hurricane or the next terrorist attack."**

**—FCC Commissioner**

**Michael Copps**



FCC Commissioner  
Michael Copps

by Chairman Kevin Martin, who has since indicated that he's reconsidering that strategy. "I don't think it's rocket science to pass a set of rules that will pass court muster," he said.

A federal court stayed the last rewrite; another is pending a full com-

Copps said media ownership was one of two issues he was particularly eager to address in the coming year. The other was homeland security. Copps said he was "pleased" that Martin had ramped up attention to homeland security issues, "but we're not ready for the next hurricane or the next terrorist attack."

Adelstein added public education to his to-do list. He's concerned that Americans won't be ready when the government pulls the plug on analog broadcasting come Feb. 17, 2009.

"We need to be making sure that consumers are ready in every possible way for digital television so that their sets don't go dark in 2009," he said.

Adelstein has proposed creating a joint task force with the National Telecommunications and Information

Administration, which is in charge of the digital-to-analog converter program, "to make sure we get a unified message out there, and that we're addressing the unique target audiences out there."

"I think we need to step up our efforts to coordinate," he said. "People are buying analog sets; cheap ones are going out the door."

## DTV INTERFERENCE

On the topic of losing unlicensed devices in white spaces, Adelstein urged prudence.

"It's something we need to be very careful about," he said. "I want to see us use the spectrum for as much data as we can, but certainly not at the price of interfering with broadcasters. Whatever we do, we have to work carefully with the industry."

Copps agreed. "We have to find a way to navigate through this," he said. "I also understand that a DTV signal is particularly sensitive to interference, but there is a need for more spectrum. We can't just close our eyes to that."

Another issue could also see the light of day at the commission. Copps said there may come a time when it would be "apropos" to take another crack at multicast must-carry, but that he maintained his long-held position that public-interest obligations in the digital realm should first be defined.

None of the commissioners backed off of the hard line on indecency. Stations and networks recently racked up \$4.5 million in FCC fines for indecency violations. ■ © NAB2006

## infoComm06

INFORMATION COMMUNICATIONS MARKETPLACE

### What's new at InfoComm 06?

The exciting lineup includes the latest in digital, networked and HD technologies, including audio, lighting, projection and display from 750 exhibitors. Get ready to sharpen your knowledge, with over 250 courses and special events.

**Conference June 3-9, 2006**  
**Exhibition June 7-9, 2006**

ORLANDO, FLORIDA, USA  
ORANGE COUNTY CONVENTION CENTER

[www.infocommshow.org](http://www.infocommshow.org)

## Home

CONTINUED FROM PAGE 18

ing that sound quality outranks video quality which probably comes as a surprise to most broadcast engineers."

He added, "Those who own these systems find they do more DVD and television viewing. The average first time system costs around \$2,100 and it may be rather surprising that 35 percent of households have invested that much. Satisfaction with these systems is high according to surveys," Holman said.

## SURROUND DIFFERENCE

Holman referred to an MIT Braintree Shopping Mall survey that found that in comparisons between HD and SD video with surround sound and ordinary sound that consumers noticed in the following order: better sound, wider picture and sharper picture.

"That's probably a little surprising

considering where the bits go in high-definition television; they all go to the sharper picture, and yet better sound was the first thing noticed," Holman said.

Regarding video quality, "perhaps we should reframe the question not into whether it's a sharper picture," he said, "but the fact that the sharper picture permits a bigger display, one that is more involving and more engaging."

Another survey shows that 75 percent of home theaters are equipped with 5.1 channels and approximately 70 percent of those surveyed say that upgrading sound was the most important feature of DVDs in a home theater environment, he said.

"Home theater raises expectations because people have bigger pictures with surround sound," he said. "The larger pictures show more detail and while the 16:9 aspect ratio is not yet digested into the marketplace, it will be. And better sound, especially 5.1 surround sound, helps." ■

© NAB2006



**You're focused on signal processing and infrastructure.**



**So are we. That's all we do.**

Whether upgrading your  
broadcast facility to digital,  
or converting to HD,  
Avenue will take you there.

- **HD up/down/cross conversion**
- **HD/SD Dual rate modules**
- **New optical I/O**
- **Best control system plus SNMP**

**Broadcast Asia Techtel Stand 7C4-06**

**ENSEMBLE**  
D E S I G N S

Tel +1 530.478.1830 ▲ Fax +1 530.478.1832  
www.ensembledesigns.com ▲ info@ensembledesigns.com  
PO Box 993 Grass Valley CA 95945 USA



# Election Atmosphere Is Electrified

Pundit predicts changes in D.C. power structure

by Deborah D. McAdams

Unrest equals change, according to Stu Rothenberg, the Washington-based political pundit who spoke at the NAB2006 Politics and Policy Breakfast. The publisher of The Rothenberg Political Report told NAB members the current political structure is in play.

"The mood on Capitol Hill and around the country is foul," he said. "The mood favors change."

The President's job approval rating is poor, but that of Congress is even worse, he said. "That's a problem for incumbents. The Democrats are poised to make major gains in the House."

Rothenberg said he was neither advocating nor tossing brickbats at any particular political persuasion, just telling NAB members "whether or not to carry an umbrella."

Broadcasters had several items hanging in the balance on Capitol Hill during the convention, including legislation from Reps. Nathan Deal, (R-Ga.) and Charles Bass, (R-N.H.) calling for retransmission reform. NAB Joint Board Chairman Bruce Reese told members the House Commerce Committee would take up the issue

that week, and to contact their home-state Congress members immediately to urge a "no" vote. Many must have, because the legislation failed to fly.

Other broadcast issues that continue

**"Washington is radioactive now."**

**—Stu Rothenberg**



Stu Rothenberg, publisher of The Rothenberg Political Report

to be targeted for legislation include the broadcast flag, unlicensed devices in white spaces

and indecency. Rothenberg said the midterm and 2008 elections could very well influence how those issues are treated.

For example, if the Democrats win the House in this year's midterm elections, Reps. Charlie Rangel of New York, Henry Waxman of California, Bennie Thompson of Mississippi and Barney Frank of Massachusetts, will likely become committee chairmen.

"That the Democrats don't have a detailed agenda is not important,"

Rothenberg said.

They are positioned to pick up eight to 12 seats in the House. In the Senate, they only need six to get to 51.

"There are Republicans in big trouble," he said, naming four: Sens. Conrad Burns of Montana, Rick Santorum of Pennsylvania, Mike DeWine of Ohio and Jim Talent of Missouri.

"It's the mood," he said. "Even in Republican leaning states, it's the mood."

Even if Democrats don't take over the House and Senate, they're going to make significant gains. If they do take over, Rothenberg said there would be investigations, censure votes and all manner of remonstrations.

"Washington is radioactive now," he said.

As for the 2008 presidential election, it's a four- or five-person race that's bound to include Sen. Hillary Clinton, (D-N.Y.), he said. "There'll be Hillary, and a fight

to be the un-Hillary."

Consider it similar to an NCAA basketball bracket, he said, with an assured berth for Clinton and Sens. John Kerry, (D-Mass.), Evan Bayh, (D-Ind.), former North Carolina Sen. John Edwards, former Virginia Governor Mark Warner and a handful of others.

"Hillary has \$19 million in the bank right now. She'll have many more millions," Rothenberg said. Warner has a personal fortune of more than \$200 million.

On the Republican side of 2008, he told broadcasters that one of their leading opponents could emerge as the candidate.

"The election is setting up perfectly for the guy you find a little scary ... John McCain," the Republican senator from Arizona, Rothenberg described McCain as independent-minded, but shrewd in his party loyalty.

"He's schmoozed successfully with his party ... and he looks like he's doing the right thing," he said. "Mitt Romney, governor of Massachusetts, and Sen. George Allen, [R-Va.], are his main competitors."

Rothenberg said that none of his prognostications were in stone, but he said it was very unlikely for the Republicans to turn around public opinion before the upcoming midterms. ■ © NAB2006

## DTV Conversion Remains D.C.-Centric

Capitol staffers agree that constituent awareness is low

by Paul Kaminski

Talk of the impending conversion to digital television dominated the conversation at this year's Washington Insider Update Panel at NAB2006.

According to panelists, despite the overwhelming presence of DTV at the convention, many consumers still don't seem to recognize that the conversion will happen in less than three years, and that they may be significantly impacted by the transition.

Ryan Walker, senior legislative analyst for Rep. Paul Gillmor, (R-Ohio), told the panel that Gillmor's office "hasn't seen a lot of constituent outcry. Outside the Beltway, most people need to be educated on what impact the conversion should have."

The topic of DTV even had a Hurricane Katrina direction. Adam Sharp, press secretary to Sen. Mary Landrieu, (D-La.), mentioned the impact DTV could have on New Orleans residents who might be replacing their flood-damaged televisions with analog sets that

**"Outside the Beltway, most people need to be educated on what impact the conversion should have."**

**—Ryan Walker, legislative analyst**



Ryan Walker, senior legislative analyst for Rep. Paul Gillmor, (R-Ohio)

would be obsolete in February 2009. Local New Orleans broadcasters did

do an impressive job, however, of cooperating during Katrina and getting information to those who needed it, Sharp said. He especially noted the radio cooperation between corporate rivals Clear Channel and Entercom.

"These corporations put profit aside and put phenomenal resources [in place] to stay on the air and stay in the market," he said.

Other panelists included Jerry Fritz, senior vice president, legal and strategic affairs for Albritton Communications Co.; Whit Adamson, president of the Tennessee Association of Broadcasters; and panel chair Shaun Sheehan, Washington vice president of the Tribune Co.

■ © NAB2006

## Real-time Broadcast Video over IP

Encoders, Decoders, and Servers

- High Quality Video Compression
- Point-to-Point and Point-to-Multipoint Video Distribution
- Live News Gathering
- 24/7 Transmission at Low Cost and Low Latency
- Integrated Solutions
- Advanced Forward Error Correction



**Streambox**

www.streambox.com  
sales@streambox.com  
+1 206.956.0544 Ext. 222



# Technology Boosts Citizen Journalism

Cell phones, blogs alter newsgathering

by Paul Kaminski

In the minutes and hours after the London subway bombings in July 2005, the BBC television news department received 20,000 e-mails containing thousands of images, and some 3,000 text messages from those on the scene.

This is the kind of power that today's audience—known as citizen journalists—now have according to panelists at the RTNDA@NAB Super Session entitled "Citizen Journalism: Embracing the New Power of Your Audience."

**"The process is not foolproof."**

**—Laura Ling,  
Current TV**

Merrill Brown of the News 21 project and MMB Media, moderated the session and shared the stage with panelist Adrian Van Klaveren, controller of production and deputy director of news for BBC News, who recounted those minutes and hours after the bombings in London. Van Klaveren suggesting that the BBC's decision to embrace and solicit viewer-created content helped the network provide breaking news more quickly.

"We've been able to get more material, which has led to a rethinking of how our newsroom works," he said.

The BBC has been a leader in integrating viewer content into its Web site and programming.

Yahoo! News General Manager Neil Budde recounted similar experiences with the New York City transit strike in December 2005, where people uploaded their cell phone photos to Yahoo!'s Flickr photo-sharing Web site. Budde explained the Yahoo! News approach to covering local news: "In 82 metro areas, Yahoo! has linked to RSS feeds from local media Web sites. So when a reader clicks on the link at Yahoo!, it drives traffic back to the station Web site."

The company plans to develop new relationships with local broadcasters and publishers.

To address concerns of authenticity of submissions, Budde said Yahoo! News will eventually move to a "mix of some unfiltered content and some vetted content, to protect the credibility of Yahoo! News as a news source."

Blogger Robert Cox of thenation-aldebate.com, and president of the Media Bloggers Association, gave a personal example of how the "blogosphere" worked, citing his recent lawsuit involv-



*Current TV supervising producer of  
vanguard journalism, Laura Ling*

ing The New York Times, and how other bloggers around the country, other traditional news sources and talk radio picked up on the dispute.

Cox said there are some two dozen suits against bloggers around the country, which he described as "slap suits, designed to squelch criticism of politicians and media."

## EXPRESS YOURSELF

The fledgling Current TV cable channel uses 30 percent of viewer-created content in its program mix. Current TV's supervising producer of vanguard journalism, Laura Ling, said the network "provides an opportunity for our viewers to express themselves. Every subject has a release, or it doesn't get on the air. But the process is not foolproof," she said. "And we've been called out by our audience when they find errors, and those corrections become part of the piece."

When questioned whether the trend would bring a decrease in staffs and freelancers, Van Klaveren suggested the opposite might be true in some cases. "We'll still need the journalists to verify what we receive." ■ © NAB2006

**WE DIDN'T INVENT  
DIGITAL BROADCAST ARCHIVES.  
WE PERFECTED THEM.**

## More RESOURCES. Broader SOLUTIONS. Deeper EXPERTISE.

Front Porch Digital and StorageTek have accelerated the evolution of integrated archive systems, with custom DIVAcomplete installations at more than sixty facilities worldwide. Now that Sun has joined forces with StorageTek, the team that perfected digital archives is even stronger.

Together, we manage mission-critical archiving in the world's leading broadcast, cable and satellite facilities. We'll tailor-fit each system to your specific requirements. With unparalleled design, delivery, and support for our custom-fit software and storage hardware solutions, we make sure you have the archive system that's perfect for your facility.

Our customers are names you know and respect, and no other archive management vendor can match the quality of our references. Call us today to see here why your company should be on this list, too, and why nothing less than perfection will do.

For more information, call Front Porch Digital today,  
or visit us online at [www.fpdigital.com](http://www.fpdigital.com).  
US: 936.520.6042, International: +33 4 50 88 37 70  
[DIVAcomplete@fpdigital.com](mailto:DIVAcomplete@fpdigital.com)





**Your programs. On time.  
In any time zone. Under \$12K.**



## Model 2470 Broadcast Time Delay



360 Systems' new Broadcast Time Delay creates any delay from 20 seconds to more than 24 hours — enough for any time zone on earth. Now, get outstanding image quality, 4 channels of audio, and all VBI lines at far lower cost than video tape or a traditional server.

### Model 2470 Features

- Outstanding image quality
- MPEG-2 video, 4:2:2 Profile, 30 Mb I-frame
- Embedded audio, AES/EBU and +4 analog
- Composite and SDI video
- RAID-5 disk array, easy drive replacement
- Captures all VBI lines
- Includes frame synchronizer
- Frame-accurate long-term operation
- Operates with or without genlock
- Easy-to-set user interface, non-volatile settings

The new 2470 Broadcast Time Delay sets a new standard for technical excellence with the reliability you need for 24/365 operation. For more information, visit [www.360Systems.com](http://www.360Systems.com), or call us at (818) 991-0360 to discuss your requirements.

**360 Systems**  
**BROADCAST**

[www.360systems.com](http://www.360systems.com)  
Voice: (818) 991-0360  
Fax: (818) 991-0360

Copyright 360 Systems ©2006

# Katrina Reverberates Nine Months Later

## Journalists discuss ongoing coverage of nation's worst natural disaster

by Melissa A. Sullivan

**A**ugust of 2005 yielded a defining moment in the history of broadcast news, a la Hurricane Katrina, according to Angie Kucharski, RTNDA chair-elect.

"So many of our colleagues faced unbelievable odds in covering this story. In many ways it was our profession at its best," she said.



Sandy Breland, executive news director at New Orleans CBS affiliate WWL-TV

**"People think it's all back to normal, but this is a basic quality-of-life issue... People are still waiting for trailers."**

**—Sandy Breland, WWL-TV**

Kucharski introduced the panelists at the RTNDA@NAB opening super session, "Katrina: The Lessons Learned." Shepard Smith, Fox News Channel anchor who moderated the panel, said eight months after the hurricane, journalists are still facing the challenge of keeping the story on the national stage.

WWL-AM had a plan. Dave Cohen, news director of WWL in New Orleans said Hurricane George, which hit New Orleans seven years earlier, had been like a dry run. Knowing what could happen helped the station prepare for Hurricane Katrina.

One of the ways WWL prepared was to contact local officials and parish leaders ahead of time and tell them where their alternative broadcasting sites were going to be.

"There were officials that drove an hour just to get to one of our contact points so they could communicate with their residents because they had no way to do it," Cohen said.

One of the lessons learned was that not all sources were reliable.

Sandy Breland, executive news director at New Orleans CBS affiliate WWL-TV said, "What you would typically rely on for sources—the police, fire and mayor's office—their communications

systems were down, just like ours. So that was a challenge."

Breland said WWL was helped because it had an alternate broadcast site, a place to "hunker down" during the hurricane and a transmitter site that could withstand a storm.

Anzio Williams, news director of WDSU-TV, the NBC news affiliate in New Orleans, said he advised other managers to have contact information for all

employees. He said there was nothing worse than when staffers' family members called and he couldn't find them.

A challenge faced by some reporters at the network level was trying to convince their bosses in New York how bad the situation was on the Gulf Coast. Smith said it was the images from photographers like J.T. Alpaugh, a pilot for Helinet in Van Nuys, Calif., which helped convince those same bosses what was really happening on the Gulf Coast. Alpaugh said he had a high-

definition camera system in his helicopter and flew to New Orleans to test out the new equipment. What started out as a documentary project became part of history.

### KEEPING THE STORY ALIVE

Smith said the Hurricane Katrina story was not getting the national exposure it deserved. He asked the panel members what journalists could do.

Dan Rather, former anchor of CBS Evening News, who was in the audience, said the way to keep the nation involved was to "ask the tough questions. Keep on asking the tough questions and being persistent about asking the tough questions."

Breland said Katrina remained a relevant story.

"People think it's all back to normal, but this is a basic quality-of-life issue. People cannot return because there is no housing, no schools for their kids and there are no hospitals. People are still waiting for trailers."

Others in the panel included Lee Cowan, correspondent for CBS News; Bob Murphy, regional vice president of programming for Clear Channel Radio; and Jack Wornack, senior vice president of domestic news operations of CNN.

■ © NAB2006