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25th anniversary

# the standard

News from ATSC, Volume Nine, Issue Three, October 2008

## Another Blast From The Past...

### Robert Hopkins and James McKinney

*In our ongoing retrospective series honoring the 25th Anniversary of the Advanced Television Systems Committee, the Standard recently listened in on an entertaining conference call with Robert Hopkins and James McKinney, former and executive director and chairman of the ATSC. The gentlemen talked to us and each other about their lives now, and the amazing advancements in television technology they've witnessed in recent years.*

**Is the television industry today, and high definition television specifically, all that you expected it to be?**

**JM:** To be honest, I expected the ATSC to disappear around 1995. I'm glad to see the organization is still healthy, and there is still work to be done!

I do have four HDTV's in the house now. I've also been watching a lot of DTV on my computer. I have thrown away all my analog television sets except for small portable device. Here in Florida, a portable television is essential due to emergencies caused by hurricanes and other bad weather. I am glad to hear that ATSC is working on development of a new standard for handheld and mobile devices.

**BH:** I converted a spare bedroom into "my room" the home theatre. I have 2 HDTVs in that room, sets I watch simultaneously. It's especially great for sporting events.

I was always a strong HD advocate, so in a lot of ways, this is what I expected. However, it took 3 to 5 years for HD to get really "ramped up". Today's

display technology is truly amazing. The products that consumers can buy now in are significantly superior to the professional products available when the standard was developed.

**JM:** When I ran the Model DTV Station, we transmitted HD on a regular basis. This was back in 1996 and 1997 the consumer sets I own now really impress me, even compared to the professional ones I was using then. Really fantastic stuff.



Robert Hopkins, Stan Baron, and James McKinney at a 1997 ATSC reception.

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- Advanced Video Coding
- AFD Initiative
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## Hopkins/McKinney... *continued from Page 1*

### What have you doing since leaving the ATSC?

**BH:** After managing the Sony Pictures High Definition Center for seven years, I moved to Florida where among other things I enjoy riding my motorcycle. This Spring, I rode across the country on old Route 66 and I hope to do it again. Maybe next time I get around to it, it will be the 50th anniversary of the ATSC, and by then I'll need a tricycle. To see photos of Bob's trip, visit [www.rhopkins.us/Route66/](http://www.rhopkins.us/Route66/).

### Any fond ATSC memories to share?

**JM:** I have wonderful memories of working with some true gentlemen in the industry Joe Flaherty of CBS, Julie Barnathan of ABC and Mike Sherlock of NBC were all great guys I miss

working with Mike, although we do talk occasionally. I have fond memories of long meetings in the New York City NBC boardroom. Other folks that come to mind include Dan Wells of PBS and later Comsat, Stan Baron of NBC, Peter Bingham of Philips, and Neil Vander Dussen of Sony. They all had great roles within the ATSC., and we all worked together, despite dramatic competitiveness, to develop HD.

For more about the 25th anniversary of the Advanced Television Systems Committee, please contact Lindsay Shelton Gross at [lsbeltongross@atsc.org](mailto:lsbeltongross@atsc.org) ■



**Mr. Robert Hopkins**

- B.S. Electrical Engineering: Perdue University
- M.S., M.Phil, and PhD Electrical Engineering: Rutgers University
- RCA: 1964-1984
- Executive Director, ATSC: 1985-1995
- Senior Vice President, General Manager, Sony Pictures High Definition Center: 1996-2003



**Mr. James McKinney**

- B.S. Electrical Engineering: West Virginia Tech, 1963
- FCC: 1963-1986
- Assistant to the President of the United States: 1987-1989
- Chairman, ATSC: 1989-1995
- CEO, Model HDTV Station Project: 1996

## AFD Ready Initiative

In order to increase awareness of AFD (Active Format Description) and promote its use throughout the television industry, a number of broadcasters have created the AFD Ready Initiative. AFD has been standardized by SMPTE, ATSC and CEA as a method of describing aspect ratio and picture characteristics of video signals. When AFD is included in broadcast signals, DTV sets and converter boxes with AFD capability can automatically adjust for a best match with the aspect ratio of the display being used. AFD can also be used to manage aspect ratio at various points in the broadcast plant and distribution chain.

Leading up to and after the analog shut-off on February 17, 2009, cable and satellite providers will down convert HD broadcasts for distribution to their SD viewers. The primary goal of the AFD Ready Initiative is to drive the deployment of AFD technologies, ensuring such down converted signals are displayed in the aspect ratio



content producers originally intended. The use of AFD is included in the ATSC Proposed Recommended Practice for Conversion of ATSC Signals for Distribution to NTSC Viewers, which provides guidance to ensure uniform and optimum program delivery of television broadcasts on cable and satellite.

The AFD Ready Initiative web page provides information on AFD capable equipment and includes links to numerous sources of information on AFD and is hosted on the NAB Web site at [www.nab.org/afdready](http://www.nab.org/afdready). ■

## New Standard Published: Advanced Video Coding

ATSC has approved and published Part 1 of A/72, "Video System and Characteristics of AVC in the ATSC Digital Television System," and "Part 2 "AVC Video Transport Subsystem Characteristics".

The new standard details the methodology to utilize Advanced Video Coding (AVC) within an ATSC DTV transmission. AVC which was developed by the ITU-T Video Coding Experts Group together with the ISO/IEC Moving Picture Experts Group is also known as H.264 and MPEG-4 Part 10. The A/72 Standard defines constraints with respect to AVC, compression format restraints, low delay and still picture modes, and bit stream specifications.

"AVC compression provides increased efficiency and flexibility" said ATSC President Mark Richer. "The new standard will be especially important for those countries which have not yet implemented digital television. AVC will also be used with standards in development such as ATSC M/H for mobile and handheld applications and ATSC NRT for non real time delivery of programming.

For more information, contact Mark Richer at [mricher@atsc.org](mailto:mricher@atsc.org) ■

## DTV Transition Test Shut-offs

To increase awareness of the transition to digital television, some broadcast stations are conducting simulated analog shut offs to help viewers determine whether or not their televisions are digital-ready. When stations turn off their analog signal for a short period of time, viewers can immediately find out if they need to take action before next February.

Despite the minor threat of Hurricane Hanna, at noon on September 8, 2008, Wilmington, NC broadcasters were the first to drop their full power analog signals, taking a leap into the digital future months before the national deadline of February 17, 2009.

Local stations WWAY ABC, WSFX TV FOX, WECT NBC, WILM LP CBS and W51CW Trinity Broadcasting transmitted only digital signals to their viewers in the Wilmington, North Carolina Designated Market Area DMA, which includes New Hanover, Bladen, Brunswick, Columbus and Pender counties.

Broadcasters and government officials, including Federal Communications Commission Chairman Kevin J. Martin, gathered at City Hall in to count down the last 10 seconds to the noon EDT conversion.

Martin and Wilmington Mayor Bill Saffo toggled a giant ceremonial switch from "Analog" to "Digital." A nearby set tuned to the analog signal of WSFX, the local Fox affiliate, went dark at the same moment, replaced a few seconds later by a message telling viewers the analog signal no longer worked.

This past summer, a number of organizations ramped up their efforts to educate viewers. Stations in Wilmington ran spots, crawls, a 30 minute DTV primer, and were involved in local speaking engagements throughout the Wilmington market. The stations first ran an analog shut-off test on August 19 at 7:30 p.m.

During the first day of the transition, the FCC reported 797 area residents called the FCC helpline asking questions and seeking help with the transition to digital television.

On September 10<sup>th</sup>, the second day of the transition, the number of calls to the FCC decreased by almost 50 percent to 424, the agency said.

Local broadcasters and Time Warner Cable in Wilmington have received another 250 300 calls, according to various sources in the market.

In March, FCC Commissioner Michael Copps and Martin agreed the Wilmington market had enough full power DTV broadcasters to effectively run such a test. Other test markets are still possible prior to the February digital deadline. Some broadcasters, including several ATSC members, have been mentioned for tests later in the fall.

In early September, ION Media released an engagement package to broadcasters, cable, and DBS providers in markets such as New York, Los Angeles, Philadelphia, San Francisco, Washington DC, and Hartford. NBC O&O's and public stations will join ION in extending the invitation to become a test shut-off market.

Gray Television also plans to test analog shut-offs. "Gray plans soft cut-offs at the 36 stations it owns or operates, and probably will run them multiple times", said Vice President of Technology James Ocon. After the simulated snow or static, stations will run text or video urging viewers to call the station to learn what to do to get DTV, he said. "Their alarms don't trip a lot of times until you're seeing snow," he said of viewers. "We have little time left, so we need to be proactive." ■



Mayor Bill Saffo and Commissioner Kevin J. Martin flip the switch at noon on September 8, 2008. (Photo: AP)

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# 2009 ATSC CALENDAR

**January 21- Board (call)**  
1:00pm to 3:00pm

**February 10- PC**  
10:00am to 4:00pm

**February 11- TSG**  
10:00am to 4:00pm

**February 24 - Board (F2F)**  
9:30am to 3:00pm

**March 26 - Board (call)**  
1:00pm to 3:00pm

**April 29- Board (call)**  
1:00pm to 3:00pm

**May 13- PC**  
9:30am to 1:00pm, St. Louis

**May 13- TSG**  
1:00pm to 5:00pm, St. Louis

**May 13 - Reception**  
6:30pm, St. Louis

**May 14- Annual Meeting**  
8:30am to 5:00pm, St. Louis

**May 15- Board (F2F)**  
8:30am to 1:00pm, St. Louis

**June 23- Board (call)**  
1:00pm to 3:00pm

**July 14 & 15- Board Retreat**

**July 21- PC**  
10:00am to 4:00pm

**July 22- TSG**  
10:00am to 4:00pm

**August 12- Board (call)**  
1:00pm to 3:00pm

**September 22- Board (F2F)**  
9:30am to 3:00pm

**September 29- PC**  
10:00am to 4:00pm

**September 30- TSG**  
10:00am to 4:00pm

**October 14- Board (call)**  
1:00pm to 3:00pm

**November 18- Board (call)**  
1:00pm to 3:00pm

**December 2- PC**  
10:00am to 4:00pm

**December 3- TSG**  
10:00am to 4:00pm

**December 15- Board (F2F)**  
9:30am to 3:00pm

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Dr. Woo Paik,  
LG Electronics

2008 SMPTE Fellows  
Patrick Waddell,  
Harmonic

Matthew Goldman,  
Tandberg Television

Lenny Lipton,  
Real D

Jerry Butler,  
PBS

Ann Marie Rohaly,  
Microsoft

## Profile: Walt Husak, Dolby



Walt Husak, Dolby

**Walt Husak** believes in the next generation. Of course, we mean ATSC 2.0. As a Vice Chair of the Planning Committee, Walt has been instrumental in the effort to solicit input from the industry regarding elements to be incorporated into

the new ATSC 2.0 standard which is a package for services targeted at the conventional fixed DTV receiver.

Walt is the Senior Manager for Electronic Media at Dolby Labs, Inc. He began his engineering career at the Advanced Television Test Center ATTC in 1990 carrying out video objective measurements and RF multipath testing of HDTV systems proposed for the ATSC standard.

Prior to joining Dolby, Walt worked on issues related to the deployment of HDTV systems in the US and the rest of the world. Walt demonstrated the world's first Digital On Channel Repeater to extend Digital Television signals into obstructed areas. He developed a mechanism for capturing RF signals for offline analysis and distribution to receiver vendors.

Walt spent many years lecturing on topics such as video compression, RF transmission for DTV, and overcoming multipath signals in urban and rural environments.

Joining Dolby in 2000 as the first video compression expert for Digital Cinema, Walt has spent the last several years studying and reporting on advanced compression systems for Digital Cinema, Digital Television, and HD DVD. He has managed or executed visual quality tests for DCI, ATSC, Dolby, and MPEG.

He is now a member of the New Technologies Team focusing his efforts on JPEG2000 and advanced MPEG codecs for Digital Cinema and Digital Television. Walt provides industry lectures on Digital Cinema systems and image compression. Walt has authored numerous articles and papers for a number of major industry publications.

Currently the Vice Chairman of SMPTE DC28 and the liaison to and from MPEG and JPEG, he served as the Chairman of the MPEG Digital Cinema Group and as secretary of the SMPTE DC28 Projection Group. He also served as a member of the ITU task group on Digital Cinema.

Walt is a member of SMPTE, MPEG, JPEG, IEEE, and SPIE.

When he's not traveling the world, Walt is busy at home with former ATSC staffer Lori Gildow and their son Alex. ■

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The ATSC is an international, non-profit organization developing voluntary standards for digital television. The ATSC has member organizations representing the broadcast, broadcast equipment, motion picture, consumer electronics, computer, cable, satellite, and semiconductor industries.

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

## Welcome Wagon

ATSC would like to welcome it's newest members:

***Bong-gee Song (Observer), Gene Miller (Observer), Community Broadcasters Association, CrestaTech, Larcan, Linear Acoustic, Max Linear, Mirics Semiconductors, Quintic Corporation, SiTune, Gordon Saussy (Observer), V4x, and Vulcan.***

These companies have recently become members. We eagerly anticipate their contributions to the DTV standards currently being developed in the ATSC, and we know their participation will have an immeasurable effect on the future of digital television.