



## 2007 ATSC DTV Hotspot

The Advanced Television Systems Committee (ATSC) and the National Association of Broadcasters (NAB) will demonstrate the most sophisticated technologies in digital television at the “DTV Hot Spot: 2007.”

The DTV Hot Spot will be showcased at the world’s largest electronic media show; NAB2007, April 16 - 19 in Las Vegas, Nevada.

“2007 DTV HotSpot attendees will be rewarded with previews of a wide array of new DTV applications,” said NAB Senior Vice President of Science & Technology, Lynn Claudy. “The ongoing advancement of standards-based broadcast technologies is critical for the continued vitality of the digital broadcast service, and we are excited to partner again with ATSC at the NAB Convention to highlight DTV progress..”

Hot spot technology demonstrations will include ATSCACAP Standard application development tools and CE solutions, A-VSB for indoor and mobile reception, ATSC receiver software and development tools, distributed

transmission test generator and analyzer, an advanced DTV multicasting service, D-ENG return channel capabilities, ATSC Software Data Download Standard and broadcast monitor, and home networking.

Companies demonstrating these technologies in the DTV Hot Spot include AMD, BitRouter,

ETRI, HANA, Harmonic/KBS, Microwave Radio Communications, Samsung, Unisoft, UpdateLogic, and Zenith/LG.

Also featured this year is a special demonstration of the ACAP Field Trial Project and its participating organizations, and an NAB and MSTV Technology Area.

“The 2007 DTV Hot Spot will highlight the ongoing evolution of technologies and products based on ATSC standards,” said ATSC President Mark Richer.

The DTV Hot Spot is located in the Las Vegas Convention Center’s South Hall Upper Lobby (Booth #L30) and will be open Monday through Wednesday, April 16th – 18th, from 9 a.m. to 6:30 p.m. and

- 2007 HotSpot Participants**
- ACAP Field Trial
  - AMD
  - BitRouter
  - ETRI
  - HANA
  - Harmonic/KBS
  - NAB/MSTV
  - MRC
  - Samsung
  - Unisoft
  - UpdateLogic
  - Zenith/LG

# the stand

## HotSpot... (continued from Page 1)

Thursday, April 19th from 9 a.m. to 4:00 p.m.

Complete show details are available at [www.nabshow.com](http://www.nabshow.com).

NAB2007 covers the development, delivery and management of professional video and audio content across all mediums.

For more information about the HotSpot, please visit [www.atsc.org](http://www.atsc.org) or contact Lindsay Shelton-Gross at [lsheiltongross@atsc.org](mailto:lsheiltongross@atsc.org) ■

## Countdown to February 2009

### Digital Television Transition (DTV) Coalition

A diverse coalition including representatives from private industry, trade associations, civil rights organizations and community groups plus the National Telecommunications and Information Administration (NTIA) announced February 28, 2007 that they will work together on a comprehensive consumer education campaign to increase awareness of the nation's transition from analog to digital television, which will be completed on February 17, 2009.

CEA estimates there are nearly 20 million households that rely solely on over-the-air television signals will be affected by the end of analog broadcasting on February 17, 2009. Millions more households that receive over-the-air signals on secondary TV sets will also be affected. About 96 million consumers subscribe to a cable or satellite service and should continue to receive the broadcast signals through their subscription service.

The mission of the DTV Transition Coalition is to ensure no consumer is left without broadcast television due to a lack of information about the transition. The privately-funded campaign will use basic marketing and public education strategies to help television viewers better understand the nature of the transition, become educated about the changes that will occur before February 2009, and provide information about steps consumers may need to take to maintain their over-the-air television signals.

One of the first components of the DTV Transition campaign is the launch of a website – [www.DTVtransition.org](http://www.DTVtransition.org) – to help consumers learn about options they have to navigate the transition to digital television.

The DTV Transition Coalition's founding members include:

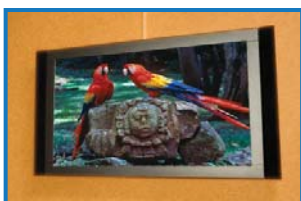
- Association for Maximum Service Television (MSTV)
- Association of Public Television Stations (APTS)
- Consumer Electronics Association (CEA)
- Consumer Electronics Retailers Coalition (CERC)
- Leadership Conference on Civil Rights (LCCR)
- LG Electronics
- National Association of Broadcasters (NAB)
- National Cable & Telecommunications Association (NCTA)



"The work of the DTV Transition Coalition will be critical to ensuring that Americans have the information they need to make the transition to digital television" said Richard E. Wiley, former Chairman of the FCC and its DTV advisory committee, who led the establishment of HDTV in the U.S. "This coalition has the breadth and scope to reach all consumers who will be affected by the DTV transition, including under-served communities."

For more information on the DTV Transition Coalition, please visit their new website: [www.DTVtransition.org](http://www.DTVtransition.org) ■

## Honduras Adopts ATSC Standard



The Advanced Television Systems Committee is pleased that the country of Honduras has adopted the ATSC Digital Television Standard for digital terrestrial television broadcasting. The decision to adopt the ATSC Standard was made by the Comisión Nacional de Telecomunicaciones (CONATEL) on

January 9, and became effective on January 16 when it was published in the Diario Oficial La Gaceta.

"We look forward to working with our colleagues in Honduras as they implement digital television," said Mark Richer, ATSC President. "We believe the ATSC suite of standards provides extraordinary flexibility and the ability to evolve with future marketplace requirements."

The ATSC Digital Television Standard has been adopted and deployed in Canada, Mexico, the United States and South Korea. ■

# Standard

## TSG/S3

### *Working to Define a New Field Communications System*

The ATSC Specialist Group on Digital Electronic News Gathering (TSG/S3) is developing a specification designed to enable efficient private communications for television remote production and news gathering operations. This work is being led by Dane Ericksen of Hammett & Edison Consulting Engineers, chairman of TSG/S3, and Society of Broadcast Engineers representative.

Broadcasters have a need for private communications between their DTV station facilities and remote crews engaged in various production activities, such as electronic news gathering (ENG), sports production, and field production. These crews may be equipped with ground-based and/or aerial microwave systems intended to return program video and audio to the DTV station. The specification under development is designed to provide the mechanism for meeting these private communications needs.

It is important to emphasize that the applications for the planned Field Communications Systems (FCS) extend beyond news events. Related and complimentary applications include coverage of sporting events (e.g., golf tournaments and motor races) and remote field production (e.g., parades and political conventions).

To the extent possible, the FCS specification is being designed for interoperability with the Data Return Link (DRL) system described in the ATSC Candidate Standard “Automatic Transmitter Power Control Data Return Link” (available on the ATSC Web site at [http://www.atsc.org/standards/cs\\_documents/CS-TSG-696r1.pdf](http://www.atsc.org/standards/cs_documents/CS-TSG-696r1.pdf)).

In a field production situation, multiple channels of interruptible fold back (IFB) audio are typically required, targeted to different crews or talent, and simultaneously available. These channels may carry mix-minus feeds to allow inter-talent communications during live operations. It may be desirable to send one program channel and a number of interrupt channels that override the program by switching at the remote end of the link.

The fundamental requirements of the FCS described in the current version of the specification are as follows:

1. Voice-grade service for IFB and related applications with a nominal bandwidth of 300 Hz to 3 kHz.
2. Maximum round trip (total system) latency of less than one-quarter-second to permit natural conversation among on-air talent.
3. System configuration that allows for expansion based on the needs of the application.

4. Private and not available to the general public.
5. Private data available on an as-needed basis.

The primary applications envisioned for the FCS technology include:

**IFB and VoIP** – IFB communications are used to provide program sound and cueing instructions back to talent and crew. IFB applications may be low bandwidth (telephone quality), but need to minimize system latency. Low latency is required to minimize the response time between a question asked in the studio and the response from the talent.

**Cueing** – Cueing information may be either voice-grade or data. Voice communications can be used for countdown purposes, but this is essentially the same as IFB. In such an application, low- or moderate-latency is required.

**Crew instructions** – Crew instructions can be either in data or voice form. As data, they may consist of assignment information (story, location, schedule, etc.), routing instructions, personnel scheduling information, and the like. For this type of data, long latencies are acceptable; even opportunistic data might be usable in some situations. As voice communications, crew instructions comprise an extension of the studio “PL” that allows the producer/director/TD to speak to the production crew. If used for this purpose, voice communications require—at most—moderate latency so that control of operations can be effectively maintained.

#### *Participate in the Work*

The draft Field Communications System specification is being written now within the TSG/S3 specialist group. Interested persons and organizations are encouraged to participate in this work. The TSG/S3 effort, as all other standards development work at ATSC, is open to those with a direct and material interest. Most of the document development and revision is done via email reflectors and scheduled conference calls, so participation in the work does not require attending face-to-face meetings, which can often be a travel burden. If you are interested in contributing to this work, or offering suggestions on operational issues, please contact Jerry Whitaker at [jwhitaker@atsc.org](mailto:jwhitaker@atsc.org) or Mr. Ericksen. ■

## ACAP Seminar Roundup

The ATSC planning committee has recently launched the Advanced Common Application Platform (ACAP) demonstration and field trial project for interactive television. The first phase, a working demonstration of ACAP applications and interoperability, was unveiled at the 2007 Technology Retreat. Sponsored by the Hollywood Post Alliance (HPA), the annual Technology Retreat has become a focal point for advanced video technologies. Again this year, ATSC sponsored a half-day seminar, this time focusing on the ACAP Standard in general, and the demonstration project in particular.

The ACAP Seminar was a huge success. Presenters included Jerry Whitaker, ATSC; Dan Cutts, Strategy and Technology; Mike Dolan, DBT; Jeff Bonin, Alticast; Dan Berkowitz, NBC Universal; Darren Forster, Softel USA; Ed Skolarus, Fox; Lee Banville, Online NewsHour; and Graham Jones, NAB.

Interactive television (ITV) enables broadcasters to enhance programming with features such as voting/polling, games, sweepstakes entry, interactive ads, e-commerce, and supplementary information relating to entertainment and news shows. Utilization of a common standard will be key to the success of interactive television.

For more information on the ACAP Seminar and ACAP Field Trial, please visit <http://www.acap.tv> ■



*Above: Darren Forster of Softel USA speaks to the ACAP Seminar attendees. Below: Dan Berkowitz of NBC Universal explains the ACAP Lab setup to Graham Jones of NAB and his wife, Linda.*



## A/98: System Renewability Transport

A new ATSC standard, A/98: System Renewability Transport, was published and approved by ATSC on January 3rd of this year, and has recently been published.

This document defines the method for transport of System Renewability Messages. A System Renewability Message (SRM) is a message issued by the administrator of a Content Protection System (CPS) that, when sent to devices that use that CPS, can revoke permission of certain devices or groups of

devices to obtain content protected by that CPS. Different CPSs will each have their own SRMs to maintain the integrity of their systems—for example, in the event that device keys are stolen and/or cloned.

An informative overview of how System Renewability Messages are used is given in Annex B of A/98. You can find A/98 online at <http://www.atsc.org/standards/a98.html> ■

## Profile: Yiyan Wu, CRC

Dr. Yiyan Wu, who recently returned to the ATSC Board of Directors representing IEEE, is an important part of the ATSC community, more specifically, the Technical Standards world. He is an active participant in TSG subcommittees TSG/S9, TSG/S3, and others.

Dr. Wu received a Bachelor's of Engineering degree from the Beijing University of Posts and Telecommunications, and his Masters in Eng. and Ph.D. degrees in electrical engineering from Carleton University, Ottawa, Canada, in 1986 and 1990, respectively.

After graduation, he worked at Telesat Canada as a senior satellite communication systems Engineer. In 1992, He joined Communications Research Centre Canada (CRC) and is now a Principle Research Scientist. Dr. Wu's research interests include broadband multimedia communications, digital broadcasting, and communication systems engineering. In addition to being an IEEE Fellow, he is also an adjunct professor of Carleton University in Ottawa, Canada; an adjunct professor at Shanghai Jiaotong University, Shanghai, China; and an advisory professor at Beijing University of Posts and Telecommunications, Beijing, China. Yiyan also acts as an advisor to several planning groups and technology centers in China.

Dr. Wu is a member of the IEEE Broadcast Technology Society Administrative Committee. He is the Editor-in-Chief of the IEEE Transactions on Broadcasting, and has been the guest editor of other IEEE publications. Dr. Wu has more than 200 publications and received many technical awards for his contributions to the research and development of digital broadcasting and broadband multimedia communications.

Yiyan has also been a member of the Canadian delegation to ITU-R Study Group 11 (television) and Study Group 6 since 1994.

The list of such accolades bestowed upon Dr. Wu is long and impressive. He has been honored by IEEE with the 1999 IEEE Consumer Electronics Society Chester Sall Award, the 2005 Scott Helt Memorial Award, the Matti S. Sukola Memorial

Award in both 2003 and 2004,

He is also the recipient of the Communications Research Centre VPRB Award Dec. 1997; the 2002 Canadian Government Federal Partners in Technology Transfer (FPTT)

Innovation Award; the 2003 CRC

Technology Transfer Recognition Award "for outstanding contribution toward the development of innovative technology and its successful commercialization by industry;" and the Public Service Award, June 2006, "In recognition of your outstanding contribution to the Public Service through your exceptional research work".

Additionally, Yiyan was awarded the Canadian Nature Science and Engineering Research Council (NSERC), Strategic Research Grant, for 2002 to 2004. The grant's project subject was "broadband wireless terrestrial forward and return channel characterization for mobile and portable interactive broadcasting."

Another of Yiyan's projects has been the Fonds de recherche sur la nature et les technologies Québec (FQRNT) research grant, which is active through 2008. The title of this project is "Impact of Windmill Structure on DTV Broadcasting (Étude de l'effet des structures éoliennes sur la radiodiffusion des signaux de télévision numérique)."

Despite his very busy schedule, Yiyan finds time for a plethora of outside-the-office interests. He says he enjoys travelling, and is very athletic- especially swimming, skating, and skiing. ■



Yiyan Wu, CRC Canada

ATSC would like to congratulate the following members for their prestigious industry awards:

**2007 NAB  
Television  
Engineering  
Achievement  
Award Winner**

**Victor Tawil,  
MSTV**

**58th Annual  
Technology &  
Engineering  
Emmy Awards**

**Microsoft  
Terayon**

the standard



1750 K Street NW, Suite 1200, Washington DC 20006

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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call us,  
202 872-9160  
fax us,  
202 872-9161  
or log on to  
[www.atsc.org](http://www.atsc.org)

## Welcome Wagon

ATSC would like to welcome it's newest members:

**BitRouter, Coherent Logix, DiBCom, Gannett, Kongsonic, Rice University and TVStorm**

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.

## New to ATSC

ATSC welcomes **Ms. Monique Seguy**. Monique, originally from Los Angeles, joins ATSC as a part-time officer manager. Monique is a graduate student at The George Washington University, working towards a degree in women's studies.

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## UPCOMING ATSC EVENTS



### 2007 ATSC Annual Meeting

May 17, 2007

Planning for the  
2007 ATSC Annual Meeting is underway!

Please find all details and register online at  
[www.atsc.org](http://www.atsc.org)

Additionally, attendees can reserve your hotel rooms  
between now and April 16, 2007:

#### Ritz-Carlton Pentagon City

<http://www.ritzcarlton.com/en/Properties/PentagonCity/Default.htm>

Room rates are \$199 / per night.  
Room availability is "first-come, first-serve"

When reserving online, please make sure to use the  
following group code: **AVTAVTA**

Any questions, please contact Lindsay Shelton-Gross at  
[lsheltongross@atsc.org](mailto:lsheltongross@atsc.org).