



CHAPTER TWENTY NEWS

society of broadcast engineers
pittsburgh chapter

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Ken discussed how present trends in broadcasting require new methods of remote control



Last Meeting ...

IP Remote Control

Henry Lassige, Jr.
KDKA-TV
hlassigejr@verizon.net

The June meeting was held at Alexander's Pasta Express in Bloomfield. Chapter Chairman Paul Byers was the presiding officer. We had a total of 10 attendees.

The program was presented by Ken Dillard of Statmon Technologies. His topic was Use of IP for remote control in broadcast environments. His main application is remote control and facilities monitoring. He emphasized that desirable traits of such a system are that it should be able to be accessed from multiple points, it should be scalable, expandable, configurable and preferably use off-the-shelf nonproprietary components. Statmon's solution to this is their Axxess software. With it they can communicate with equipment which can be remote controlled any way from GPI to serial protocols to SNMP. Axxess uses a standard web browser for an interface and can even be used from a Black Berry.

Another product they have is called Roving, which works with Axxess to allow remote control as if sitting in master control. It allows control and monitoring from a scale of a national network down to a single piece of equipment sitting in a rack somewhere in one of the network's facilities. Another product they have is Accurate, which can be used to monitor Nielsen ratings.



Next Meeting ...

Audio Processing for DTV

Dave Kasperek
Director of Engineering, WTAE
dkasperek@hearst.com

The September meeting will be at 7 PM on the 18th at Alexander's Pasta Express, 5104 Liberty Ave. Our presenter will be Hal Buttermore, Sales Engineer for Linear Acoustic Inc., speaking on "Audio Processing for DTV: Solving LOUD Commercials and Other Problems." He will address DTV audio loudness control issues, Dialnorm, upmixing, AC3 encoding, metadata management, viewer complaints, loud commercials, FCC compliance, and several solutions for the above designed to fit all budgets.

With the deadline for the DTV transition quickly approaching, broadcasters face numerous challenges in providing digital broadcasts that comply with FCC regulations. The newly introduced Commercial Advertisement Loudness Mitigation Act (CALM Act), H.R. 6209, would extend the reach of these regulations, giving the FCC one year to enact rules that would require television advertisements to not be overly loud. If the CALM Act is passed into law, broadcasters will need to implement audio-processing solutions that limit the loudness of advertisements.

For anyone who has interest in these types of products, Hal is available August 13th and 14th to visit stations and provide demo equipment to help solve DTV audio problems. Contact him directly at 248-953-3377 or Hal@LinearAcoustic.com.

Mark your calendar ...

September 18 Monthly Chapter 20 Meeting
October 20 & 21 Chapter 20 Equipment Expo



Chairman's Corner

Meeting, Expo & DTV Test Details

Paul Byers
Executive Director of Engineering, WOED
pbyers@wqed.org

Welcome back! I hope you all had an enjoyable and productive summer.

Our next meeting will be held on Thursday, September 18th at 7 PM at Alexander's Pasta Express on Liberty Avenue in Bloomfield. Come a little early to shoot the breeze, have dinner compliments of Chapter 20 and stay for a presentation on 5.1 Surround Sound for DTV presented by Hal Buttermore from Linear Acoustic. I hope to see you there.

Don't forget that our annual **Expo** is coming up on October 20th and 21st. The title of this year's show is "Long Live Digital!" and will once again be held at the Monroeville ExpoMart. The first post card mailings have just gone out and if you haven't registered yet, please do so by visiting www.sbe20.org/expo.

In this month's column I would like to focus once again on February 17th, 2009 and a unique event that will be taking place in a couple of months to help increase viewer awareness about the **digital transition**. The Pennsylvania Association of Broadcasters (PAB) is coordinating a statewide initiative designed to identify those viewers who will not be able to receive television signals when our analog transmitters are switched off.

The Board of Directors of PAB has unanimously voted to conduct a test of pay provider and viewers' preparedness for the DTV transition. This test will be conducted on November 17 at 6:25 PM. This marks the "three month point" from our February 17 transition to digital. We ask that each Pennsylvania television station participate in this test and that no other tests, of this nature, are conducted prior to this statewide test. This vote followed a meeting between PAB television managers and executives of the Broadband Cable Association of Pennsylvania (BCAP).

The goals for this test are as follows:

- 1) To give cable systems in Pennsylvania a date certain when testing will begin. They will have this time to purchase and install needed equipment so as to avoid "concerned" subscribers who experienced blackout. The test is not designed to embarrass or slam cable/satellite or telephone providers. By giving these companies a three month "heads up," they should have no reasons for being unprepared for the November 17th test.

- 2) To give over-the-air viewers a "wake up call" that time is moving ever closer to the February 17th deadline. Coupons take sixty days to obtain. Converter boxes should be bought and installed and antennae need to be tested or purchased for improved reception.
- 3) To demonstrate to the FCC and Congress that Pennsylvania's television industry is working, in conjunction with cable, satellite and telephone, to educate viewers about the transition.
- 4) To generate broadcast, print and internet coverage about the event, ahead of time and following, so as to spur pay providers and viewers to take action now rather than later.

The method for testing:

Each station is asked to place a full screen graphic on its analog transmitter, during this 60 second test, which informs viewers that the signal they are watching will disappear on February 17th, 2009. If stations are unable to place a graphic up on just the analog transmitter, stations should instead turn off the analog transmitter for the 60-second test.

Since this will be at a time when some stations will be into their 6 PM newscasts, it is suggested that stations incorporate this test into an informational news story on the transition. At 6:25 PM the analog transmitter is to either show the screen described above or it can be turned off.

During the 1 minute period, the news team can reassure viewers that if the newscast is still being seen, the viewer is ready for February 17.

When the analog transmitter is turned back on, the reporter can inform those viewers that if they saw snow or the warning graphic, they are



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Society of Broadcast Engineers
Chapter 20
P.O. Box 16312
Pittsburgh, PA 15242-0312

Web page <http://www.sbe20.org>

Chairman-	Paul Byers	412-622-1530
Vice Chair-	Dave Kasperek	412-244-4615
Secretary-	Henry Lassige, Jr.	724-258-5416
Treasurer-	Henry Lassige, Sr.	412-429-2000
Frequency Coordinator-	Otto Schellin	412-237-1184
Expo Planner-	Joann Garvin	724-843-7501
Certification-	Tom Skubel	412-244-4435
FCC Committee-	Paul Byers	412-622-1530
Newsletter Editor-	Gary Stewart	412-824-3930
Newsletter DTP-	Jean Stewart	412-678-9211

not ready and advise them on how to get ready. Stations not in newscast are urged to use a crawl or full screen graphic to alert people of the test to inform them or prepare a public service video to air during the test.

Why a 60 second test?


BCAP and PAB believe this length of time is necessary for cable systems to properly scan all channels to determine if a problem exists on any channel.

Prior to the test:

As the November 17th date nears, stations are urged, via PSA, news, station website and/or informational crawls, to inform viewers of your station's upcoming DTV test. Hopefully this will build a significant audience wanting to see if their receivers will work. It should also generate print outlet DTV interest to report prior to and following the test. PAB will also ask the states' radio stations to promote the test date and time.

Station outreach to cable systems:

PAB asks all participating television station executives to speedily notify those cable systems carrying your station of the upcoming test. Also tell each that you will not conduct a DTV test prior to November 17th. This permits cable systems time to prepare and demonstrates to each that this is a partnership. Hopefully cable is fully ready and that the test confirms such.



When you talk to vendors in the next few weeks, ask them if they will be exhibiting at the SBE Expo in Pittsburgh. Give them the web site www.sbe20.org or Joann Garvin's phone number: 724-843-7501.

FCC Report

Paul Byers
pbyers@wqed.org

FCC INVESTIGATES WIDESPREAD ILLEGAL WIRELESS MICS IN TELEVISION BAND AND PROPOSES TO END OPERATION OF LICENSED 700 MHZ BROADCAST AUXILIARY STATIONS ON FEBRUARY 18, 2009

The FCC has initiated an investigation into the marketing and sale of wireless microphones (mics) in the television band to individuals and organizations not eligible for such licenses. Only broadcast licensees and networks, cable TV system operators, motion picture and TV producers, and licensees of the former MMDS/"wireless cable" service may validly use licensed Low Power Auxiliary Broadcast (LPAB) stations.

LPAB stations are used as wireless microphones, to cue and control communications, and for synchronization of TV camera signals. Licenses may specify operation in only one band, or sometimes in several bands, and usually over a broad geographic area.

The Commission has also initiated a formal rulemaking to "clarify" that licensed LPAB devices cannot be used in the spectrum now occupied by television channels 51-69 (698 MHz to 806 MHz, the "700 MHz band") on February 18, 2009, when the DTV transition has been completed and the band becomes exclusively available to public safety and new commercial services (excluding some Low Power Television and Television Translator Stations that continue to be authorized until the FCC completes the rulemaking relating to those services).

During the course of the rulemaking, a freeze has been imposed on the filing of new applications for LPAB stations that include proposals to operate in the 700 MHz band on February 18, 2009. Any such applications presently pending will not be processed (effective August 21, 2008) until the end of this rulemaking. Equipment approval processes involving equipment using 700 MHz frequencies have been suspended as well. LPAB operations in other bands are not directly affected by the rulemaking, other than that devices now operating in the 700 MHz band will need to be retuned into possibly crowded bands.

Pending applications seeking operation in both the 700 MHz band and other bands can be amended to delete the request for the 700 MHz band operations, which would allow the applications to be processed and granted.

C-World Video & Audio Design, Past & Present

By Nicholas Cap
Freelance TV Engineer

C-World venue systems were designed as a step down from a typical NBC 'A' or 'B' venue where we have major unilateral facilities of a mobile unit or fly-pack, but where we still want to customize our coverage from a venue utilizing a smaller compliment of equipment and manpower.

C-World Audio and Video designs have come a long way from what they were in Sydney in 2000. The systems in Sydney used a small stereo analog console, and a 10x1 router, and an ENG camera all connected back to the International Broadcast Center (IBC) via a V and A circuit. Everyone was located in the commentary booth during the telecasts, and there was no room for anyone to move. The audio operator was challenged to hear the mix, and NBC had no footprint in the Host broadcast compound.

During the Athens 2004, and Torino 2006 Olympics the C-world designs grew into using two audio boards from Audio Developments, which had 11 mono inputs, and 3 stereo inputs. Using audio embedders to transport all audio from

the venue level to the IBC, and NBC had a footprint in a "cabine" located in the Host broadcast compound. The video design also did a major jump, into digital using a 16x16 video router, also adding a Sony 16 input switcher, and two ccu's with local camera control. We also added one tape machine, and a large monitor wall system built on a bread rack to round out this mini control room.

Now for Beijing in 2008, NBC has gone on to HD with the C-World designs, and supporting and mixing 5.1 surround sound as well.

C-World audio's first big change is moving into a DiGiCo DS-00 mixing console. We now have a console that has 40 Analog mic/line inputs and 32 analog line outputs, 32 AES inputs and outputs and 5.1 bussing, metering and monitoring.



Nick Cap was working in China for the NBC Olympic broadcasts from July 5th to Sept 7th. It looks like they gave him a little time off too.

We are also embedding 12 of the 16 possible audio signals on the main program output.

There is one venue this Olympics which will remain stereo, and that is boxing. The majority of their programs will be on cable, and not on the NBC network.

The Video design of C-worlds have also moved on to HD. We now have two versions out. The first is a C-World +, which will be at boxing. It is built in a two rack system with one rack housing the switcher frame and camera ccu's. The second rack will hold all the terminal gear that will distribute, and route all the video and audio signals for the system. Within this rack we are now using an Evertz 5600msc sync generator, and several Miranda Densite' 2 frames. Once again we will have a Tektronix rasterizer WVR7100. This (plus) system has a Sony MVS8000G 32 input switcher, with a Sony HDSX3600 32x32 router, and a

Miranda Alto to provide a multiviewer signal to a Sony 52" LCD.

The second C-World design is called a C (two) system, and has all the same components that are in the (plus) system, but is scaled down slightly. We will use a Sony MFS 2000 switcher with 16 inputs, and a Sony HDSX3400 16x16 router. This system will also have a Miranda Alto multiviewer that will feed a signal to a Sony 52" LCD to be used as the monitor wall. The C-world (two) venues will be Basketball, and indoor volleyball.



The video racks for the C-world which provided the NBC feed from Boxing.



A C-world DiGiCo DS-00 5.1 mixing console.



Musings of a Consultant

John Luff
Television Technology
Consultant
john.luff@verizon.net

There are various countdown clocks running this fall. One shows 168 today, the other shows 120. Of course, the earlier one marks the next Presidential Inauguration, and the later one the cutoff of analog broadcasting... sort of anyway.

Recent actions allow stations with hardships and those near the Mexican border to keep going for various lengths of time. A few need to move from side mount to top mount antennas. The stations in New York who lost their site 7 years ago on 9-11 are allowed some grace. And stations who would lose critical Spanish speaking audience and face withering competition along the border have been heard. Lastly, literally thousands of LPTV stations will change nothing, and many translators, particularly in the Intermountain West, will continue to serve people who otherwise would be disenfranchised.

When will it finally be a uniformly digital world? My guess is sometime just after the next midterm election, which keeps Congress from having to face the music while voters are making decisions on their future. Or, maybe never. The British model might prevail. 405 line monochrome transmissions were on the air until 1985, 21 years after the BBC launched 625 service. Let's hope it is not that long here!"

Opportunity

Father Joe Codori, a Roman Catholic Priest stationed at St. Athanasius Parish in West View, is coordinating a group that is trying to acquire and run a nonprofit AM/FM radio station in the Pittsburgh area to broadcast Catholic programming. He says the group is lacking someone with Technical/Broadcast/FCC/Engineering experience. Father Codori would like to know if any SBE members or friends would be interested in providing Pro-Bono assistance for the work.

You can contact Father Codori at 412-427-7896.

Expo Promotions

The first Expo mailing went out to over 4500 names on Wednesday, September 3rd. This was immediately followed by emails to over 1200 people from our database. We are also including one of the postcards with this newsletter. Be sure to hang the extras up around your work place so everyone is aware of the Expo. To get more notice you can move them around to different locations at work every few days.

The next mailing will be the first of October and will be a tri-fold flyer containing all details of the Expo including door prizes, tech papers and any special meetings.

Society of Broadcast Engineers
Chapter 20, Pittsburgh

Call For Papers

The Society of Broadcast Engineers, Chapter 20, Pittsburgh, PA invites submission of technical papers for presentation at the 37th Annual Regional Convention on October 20 & 21, 2008. Papers will be presented on the 21st only.

The title of this year's convention is: "Long Live Digital !!!"

If you or your organization wishes to present a paper, please submit the following information:

- Proposed Title of Presentation
- Organization or Individual Presenting Paper
- Bio of Organization or Individual (Organization affiliations/Resume)
- Sixty (60) Word Abstract of Proposal
- Submission Date: September 17, 2008

Note: The presentations may reference specific products or services, as illustrations, but are intended to provide informational content to our attendees and are not to become "just another sales pitch."

To submit your proposal, please use either of the following addresses:

David A Kasperek
WTAE-TV
400 Ardmore Boulevard
Pittsburgh, PA 15221

OR email dkasperek@hearst.com

If you have any questions, contact me at 412-244-4615

Thank you,
David. A Kasperek
Vice Chair
SBE Chapter 20, Pittsburgh

Society of Broadcast Engineers
Pittsburgh Chapter
P.O. Box 16312
Pittsburgh, PA 15242

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Next Meeting

Date: Thursday, September 18

Presentation: **Audio Processing for DTV:**
Solving LOUD Commercials and Other Problems
By Hal Buttermore, Sales Engineer for Linear Acoustic

Location: Alexander's Pasta Express, 5104 Liberty Ave., Pittsburgh

Time: Phone: 412-687-8741
6:30 PM Gather and shoot the breeze
7:00 PM Dinner



Equipment Expo

October 20 & 21, 2008

Monday 5 P.M. - 8 P.M.

Tuesday 9 A.M. - 5 P.M.