

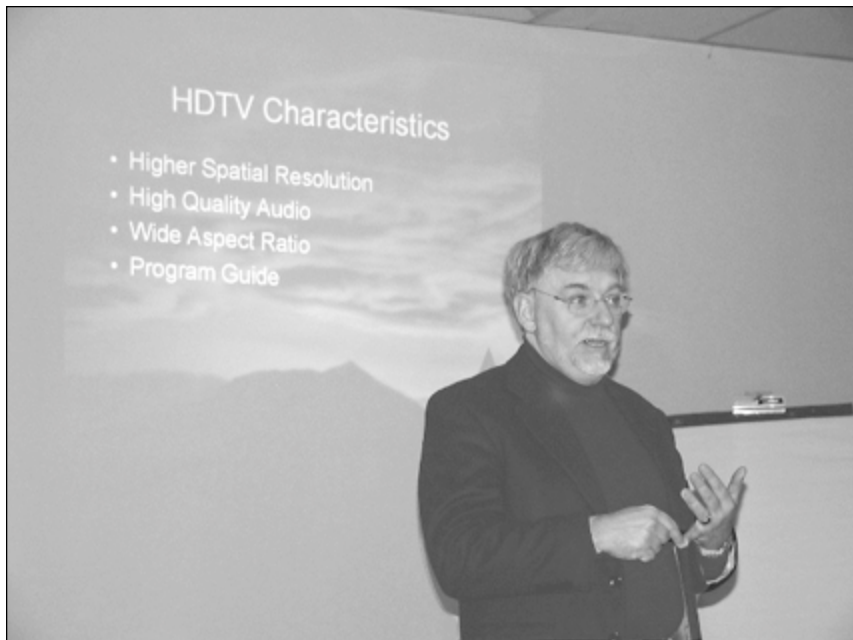


CHAPTER TWENTY NEWS

society of broadcast engineers
pittsburgh chapter

February 2003

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John covered some basics, too.

Last Meeting Receiving DTV "Down in the Valley" – or elsewhere in the Pittsburgh Area

Some 20 area broadcasters attended the January meeting on the 16th at Gaetano's.

John Luff spoke about some of the more practical considerations of digital television, PSIP, 5.1 audio, etc. He covered upconversion from the aspect of what signals can be and what ones can not be upconverted. Also the problems associated with mixing different formats.

In addition, we got some practical experience with DTV reception in a typical, deep, Pittsburgh valley. We were able to receive and display DT48, DT42, DT43 and DT25. DT38 would register on the spectrum analyzer but the two decoders we had (\$5,000 and \$500) would not lock on to it. DT51 could not be discerned at all from that location and DT50 is not on the air yet. We experimented with two types of indoor antennas and an outside-type corner reflector (it was inside though).

The presence of two representatives from Armstrong Cable reminded us that they carry all the current Pittsburgh DTV stations on their HD cable tier, and their decoder boxes lock on them all.

Webletters

Read your newsletter on the web!

Chapter 20's monthly newsletter is now available on the web in pdf format. It will be posted each month on the day it is mailed. The indexing will be based on content, last meeting programs and next meeting programs. As many back issues that can fit in our web space will be kept on line.

There will also be a newsletter subscription service form. You will be able to subscribe, unsubscribe and change your address. The URL is www.broadcast.net/~sbe20/, then look for the newsletter link.

Next Meeting

Time: Thursday, February 20

12 noon - 1:30 P.M.

Come at 11:30 to shoot the breeze

Program:

The Super Bowl Broadcast:

*Reaching the world with a
combinaton of
digital technologies
and good*

analog engineering practices.

Presented by Nick Cap

Place: Gaetano's Restaurant

1617 Banksville Rd.

Use the Rt. 19 South (Banksville Rd.) exit
when coming out of town.

Use the Greentree exit when coming in.

Ph. 412-343-6640

Lunch fee \$7



Chairman's Corner

SPACE SHUTTLES, AIRPLANES AND THE COMPLACENCY SYNDROME: DO YOU HAVE INSURANCE?

R.W. Sam Zborowski
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The recent loss of the space shuttle Columbia and especially tragic loss of its crew serve as a stark reminder that bad things can happen to good people. Tragedies involving loss of life often stimulate us to think of insurance—what if something bad happens to me? We may think of the typical forms of insurance such as life, health, auto/accident, long-term care, etc. What we each carry should be a personal decision based on our individual circumstances. However, insurance can take many forms. We typically carry various forms of hardware as insurance. Spare tires, jumper cables and flashlights carried in our cars come to mind as some examples. The Office of Homeland Security recently suggested we each assemble a personal disaster kit of essential items like water, food, clothing, prescription medications, etc. for use in case of disaster. This has been standard operating procedure for people living in areas that are subject to flooding, areas threatened by hurricanes or other naturally occurring phenomena. We should all think about this since it is not possible to predict every possible disaster.

Broadcast stations typically have some hardware as insurance in the form of backup transmitters, backup power supplies, backup STL's, etc. Software forms of insurance might include frequent backups of critical data files stored on media at an off-site location. Fortunately, mishaps in broadcasting typically involve loss of on-air time with the attendant loss of revenue rather than loss of life. Damaged equipment and missing revenue can be valued and replaced by dollars. Some notable exceptions have been known to occur such as when a news crew rushes to cover a breaking news event and raises the antenna mast into overhead power wires or a technician bypasses interlocks to save time while working on high-voltage sections of a transmitter with sometimes deadly consequences. Each of us is unique and cannot be valued or replaced by mere dollars! The best insurance in these situations is to be vigilant and try to predict the consequences of our actions.

These are all forms of risk management. We accept some risk each day we get out of bed and drive to work. We have made the decision that the pay is worth the risk of driving to work. Sometimes the risk is not worth the reward. Golfers are killed each year by lightning because they decided to continue play with the knowledge that thunderstorms were in the vicinity. People continue smoking with the knowledge that smoking leads to numerous diseases that might otherwise be avoided.

As an airplane pilot, in addition to the conventional liability and equipment replacement coverage, I tend to carry insurance in the form of knowledge derived by reading about aircraft accident investigations by the National Transportation Safety Board. Obviously, space flight carries substantially more risk than flight in an aircraft. However, there are many parallels between the shuttle accident investigation and that of conventional aircraft accidents. These investigations typically take months or even years to determine the root cause with a high degree of confidence. NTSB investigations typically attribute an accident cause either to pilot error, weather factors, air traffic system error or some mechanical failure. Ultimately, the cause is human error or at least poor judgment. Weather factors often fall into this category with a bad decision to press on into unacceptably bad weather conditions. Even in those cases where some mechanical part failed, someone made a mistake either in the design, fabrication, certification, maintenance or inspection activities surrounding that aircraft. One form of pilot error involves complacency. Here, in what seems to be a routine flight, some subtle failure is occurring and is not noticed by the pilot until it is too late to avoid disaster. The remedy here is to NOT assume there is such a thing as a routine flight and maintain a high degree of vigilance for possible problems. Discovering a problem early leaves more time to deal with the problem.

Broadcasters need insurance against a similar complacency syndrome as well. Failure to recognize and react to changes in our politi-

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Tom gives Kim some tips.

Annual Convention

Kim Cannon
Chapter 20 Convention Chair
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Hello, SBE Members, I am happy to carry the torch for the 2003 Pittsburgh SBE Convention. Thank you, Tom Bills.

My name is Kim Cannon, CDR Systems, Monroeville. My background is specializing in technology equipment for professional video production. My goal is to add another perspective to the show this year. We have the engineering side (we could not do it without you!) but also incorporate the other aspects of the broadcasting industry which delivers the final product to you and me.

First and foremost, I need feedback from everyone. Any suggestions are welcome. What would you like to see? What are you interested in? If we could arrange hands on training, what would it be? Let's work together to make this an event we would all learn at, experience, and appreciate.

Can't make NAB? Pittsburgh's SBE Show is a great way to meet your local vendors, manufacturers, and colleagues.

The SBE Chapter 20 Regional Convention is tentatively scheduled for October 2nd at the Monroeville Expo Mart. Volunteers are wanted...email or call me, please. To our exhibitors: If you have not received an email from me, please call me at 412-374-1700 x104 to update your records. I'm looking forward to working with everyone.

EAS Chairman Needed

We are in need of an EAS Chairman. The only requirements are that you be interested in EAS and work with it enough to know what's going on.

The job entails letting us know the news about EAS and the latest happenings like problems with the monthly tests or changes to software requirements of the receivers. This should at least be done in a newsletter article (or supply the information for us to write an article).

It would be nice to have oral reports at the monthly meeting, but if you can't get to the meetings, we will do without that. You should also be able to field questions from the local broadcasters.

Contact Sam Zborowski if you are interested in volunteering for this.

DO YOU HAVE INSURANCE?

Continued from page 2

cal, technical and regulatory environment in a timely and effective manner can lead to economic disaster. In particular, it is a mistake to believe that the regulatory environment will remain stable as it has for decades. The FCC works for Congress, which is influenced by lobbyists of many industries that desperately want spectrum while Congress is anxious to raise revenue through the process of spectrum auctions. I would characterize many of the new industries as "one-to-one" information services with wireless Internet access as an example. I would characterize broadcast as a "one-to-many" information service. Fortunately, the FCC seems to be trying to balance the needs of citizens for BOTH types of service! One form of insurance is to regularly visit the www.fcc.gov web site to stay informed about proposed regulatory actions. Of particular note right

now is the new review of DTV service. FCC is seeking comments regarding many aspects of the DTV transition including, among others, the criteria for shutdown of analog TV service on 12/31/06. Not so long ago, an attorney was required to craft comments to the FCC. Now, the Internet facilitates relatively simple, inexpensive submission of comments by interested parties. They will be hearing from other industries; let them know what you think! Comment filing deadline is 4/14/03.

So, do you have insurance? I bet you have spare batteries for that flashlight!



Nick Paoli, Roger Wilson, Mike Nudi and Sam Zborowski (foreground) analyze the RF waveform of a local DTV station at Gaetano's during last month's meeting.



On the Road to Super Bowl 2003

Part three of three

By Nicholas Cap
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Well the NFL's 37th Super Bowl has been broadcast from Qualcomm Stadium in San Diego. This Super Bowl has been rated as the Second most watched game in Super Bowl history. Great news for ABC sports, and it's advertiser's.

This telecast went smoothly due to some very good, and thorough engineering pre-planning by a large number of ABC and National Mobile Television engineers. The 37th annual Super Bowl telecast was put together with 4 53 foot trailers for the Host telecast, which covered the Pre/Post game show. Using NMT's, DX-11's unit as the core system, for cameras, and tape replays. DX-11's B-unit was home to graphics and some extra replay devices. A Bexel edit trailer supplemented the show with edit suites, and non-linear edit rooms located in an adjacent trailer. The Game truck was composed of 8 NMT trailers.

DX-10 which does the normal Monday Nite telecast was supported by A-36, which does all of ABC sports golf telecasts throughout the year. A-36 provided the extra cameras, and tape replay units needed for the game show. The game total turned out to be 41 cameras, 39 replay devices, 1-yellow line, and a Horse trailer.

The half time show was done using a Westwood One audio truck and a Denali production truck. The HD telecast had the roughest start with new cameras, SMPTE camera cables getting run wrong, and a mobile unit which had trouble keeping the equipment cool. However, they were able to broadcast an HD 720p signal to all ABC stations.

This year's Super Bowl was kept in the digital domain within all trucks, and this I think helped us to plan out the video and audio flow with the minimum of lip sync errors. This show had 6 types of video DA's, 4 types of cameras, 2 switcher types, and 3 different routers. I think that this goes to show how well a standard does work across different manufacturing lines.

Bottom line, the show looked clean at home with just a couple of production errors.



50,000 feet of triax camera cable being checked for the 65 cameras going in for the Super Bowl.



All of the ABC trucks in their final positions for Super Bowl 37.

Next Meeting Hot Off The Field

The 37th Super Bowl was the second most watched in history. Nick Cap will show how the Super Bowl broadcast was done with digital technologies mixed with good analog engineering practices. Don't miss it at the next meeting of Chapter 20, on February 20.