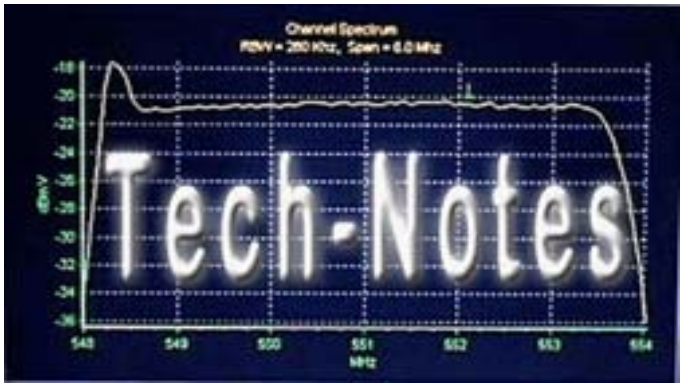

http://www.Tech-Notes.tv
March 8, 2004
Tech-Note – 121
First Edition: May 18, 1997

Our purpose, mission statement, this current edition, archived editions and other relative information is posted on our website.
This is YOUR forum!

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Note: All **Blue** underscored items are links.

(Click on the Link below to navigate to that section of Tech-Notes)

Editor's Comments

We have a new way of navigating through the Tech-Notes. By clicking or using the links listed above, it will take you to that section of the Tech-Notes. All links in this document are underlined and in blue. We believe this will be easier than the PDF bookmarks and it does essentially the same thing. You won't have to go looking for the tab etc. Your comments are most welcome: **Editor@Tech-Notes.tv**

Sorry for the delay in getting this edition out. We've been up to our ears in various things and Microsoft struck again, but you don't need to hear our problems. There is a ton of information in it. Hope it was worth waiting for.

NAB2004 is just around the corner: April 17 - 22 in Las Vegas (exhibits open April 19). It is the world's largest electronic media show covering the development, delivery and management of professional video and audio content across all mediums. Complete NAB2004 details are available at **www.nab.org/conventions/nab2004** We'll be there. Look for the fat guy in the scooter. Stop us and say HI. More about daily reports, etc. in our next edition.

The Road Show. For those poooooooor unfortunate souls who are unable to attend this year's technical bash in the desert, there is always The Road Show – A Taste of NAB 2004. There is no substitute for the real NAB convention, but, as we said, for those who didn't or couldn't do the Las Vegas thing, this is at least a taste of what you missed. It's also an opportunity for those who did make it to catch some of what they may have missed or get a second look at the good stuff they did see.

The Road Show – a Taste of NAB is not affiliated with the National Association of Broadcasters.

To date we've secured 11 of the 12 companies who we'll be joining us on the Road Show. Just remember: these are the folks who care enough to want you to know about their technology:

Leader, LACAN USA, LightningMasters, ESE, Quartz, Cobalt Digital, Sundance Digital, Wohler, Broadcast Warehouse, Asaca/Shibasoku Corp. Of America, RIEDEL Communications and #12???????

The Road Show is purely an educational experience – no sales.

We've confirmed no less than fifty venues across the country. Although the exact location for some of the venues has not been set yet, the folks in these places have said they'd like us to be there. It will all come together. Here's the schedule (each item is a link to that venue's special page):

Venue #	Locations	Date	Day of the week
1	Medford, OR	April 26th	Monday*
2	San Francisco, CA	April 28th	Wednesday*
3	Sacramento, CA	April 29th	Thursday*
4	Napa Valley Community College, Napa Valley, CA	May 1st	Saturday*
5	Reno, NV	May 3rd	Monday*
6	Fresno, CA	May 5th	Wednesday
7	Los Angeles, CA	May 7th	Friday*
8	San Diego, CA	May 10th	Monday**
9	Phoenix, AZ	May 12th	Wednesday*
10	Albuquerque, NM	May 14th	Friday*
11	El Paso, TX	May 17th	Monday

12	Tulsa, OK	May 19th	Wednesday**
13	Dallas, TX	May 21st	Friday*
14	Houston, TX	May 24th	Monday**
15	Lafayette, LA	May 26th	Wednesday**
16	New Orleans, LA	May 28th	Friday*
17	Jackson, MS	June 1st	Tuesday
18	Birmingham/Montgomery, AL	June 3rd	Thursday
19	TAMPA, FL	June 7th	Monday
20	Miami, FL	June 9th	Wednesday**
21	West Palm Beach, FL	June 11th	Friday*
22	Jacksonville, FL	June 14th	Monday*
23	Atlanta, GA	June 16th	Wednesday
24	Huntsville, AL	June 18th	Friday*
25	Nashville, TN	June 21st	Monday*
26	Knoxville, TN	June 23rd	Wednesday*
27	Greenville, SC	June 25th	Friday*
28	Charlotte, NC	June 28th	Monday*
29	Raleigh-Durham, NC	June 30th	Wednesday
30	Baltimore/Washington Area	July 6th	Tuesday
31	Philadelphia, PA	July 8th	Thursday
32	New Haven, CT	July 12th	Monday**
33	Boston, MA	July 14th	Wednesday
34	North Eastern New York	July 16th	Friday*
35	Binghamton, NY	July 19th	Monday**
36	Cleveland, OH	July 21st	Wednesday
37	Columbus, OH	July 22nd	Thursday*
38	Indianapolis, IN	July 26th	Monday**
39	Urbana/Champaign, IL	July 28th	Wednesday**
40	Madison, WI	July 29th	Thursday**
41	Minneapolis/St. Paul, MN	August 2nd	Monday**
42	Omaha, NE	August 4th	Wednesday*
43	Riverton, WY	August 6th	Friday*
44	Salt Lake City, UT	August 9th	Monday*
45	Bozeman, MT	August 11th	Wednesday*
46	Boise, ID	August 13th	Friday*
47	Spokane, WA	August 16th	Monday*
48	Washington State University	August 18th	Wednesday*
49	Seattle, WA	August 20th	Friday*
50	Portland, OR	August 24th	Tuesday*
51	Eugene, OR	August 25th	Wednesday*

Here's hoping that we'll see you somewhere along the Road Show. For questions about the Road Show, Click here

Found a few links that may be for interest to some of you. Have fun.

History of the BBC

Also found another link of interest on: **WOR-TV & FM. It's a well done history page done by Jim Hawkins:**

One other link of fun and interest: **This little gem is sure to raise the eyebrows of computer viewers near and far.**

Here are several URLs that you may find interesting. It all has to do with the Big Arc:
http://www.wiseguysynth.com/larry/day.htm
http://205.243.100.155/frames/mpg/500kV_Switch.mpg
http://205.243.100.155/frames/longarc.htm#500_kV_Switch

Letters to the Editor

Editor's Note: *Unless specifically asked not to print letters to us, we will.*

From: Marilyn Hyndman **marilyn@northernvisions.org**
Subject: Re: Tech-Notes #122

Hi there,

Thanks for the Tech Notes, always great.....

Running a small local TV station, non profit and community led, here, having been given a spare analogue frequency. We need a cheap playout system. Have you come across a multiple DVD player configuration which is capable of playing one DVD after another unattended preferably without a time lag between discs? We wanted to play out on DVD but so far haven't been able to source a machine that one didn't need to manually change and took too long to play one DVD after another.

All the best,
Marilyn

Editor's Note: These little "Return to the Index boxes will be scattered through out Tech-Notes as a navigation tool to take you back to the top of the document and the Index.

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From: Ed Williams **ewilliams@pbs.org**

Subject: And they say DTV signals don't travel....

Thought you might be interested in this TV-DX website:
http://www.oldtvguides.com/DXPhotos/
Ed Williams

From: Scott Shearer **sshearer@keeferwood.com**

Thank you very much for subscribing me. I don't know why my e-mail was undeliverable using the address on your web page but I did try it twice several days apart and it failed both times.

I look forward to receiving your future tech-notes. Your latest edition was forwarded to me by Dale Cripps as a subscriber to the HDTV Magazine he publishes. I really enjoyed the magazine and found it very informative and look forward to reading future issues.

Thank you again for your assistance and thanks for a very informative and interesting publication. Scott Shearer

News

NOAA Weather Radio Implementation of new EAS event codes 6/30/04

As received on line

The NWS has announced full national implementation on NOAA Weather Radio of the new EAS event codes effective on Wednesday, June 30, 2004 at 1800 hours Coordinated Universal Time.

You may use this as an opportunity to urge owner/operators of broadcast facilities to ensure their EAS equipment has been upgraded to implement the 2002 FCC Report and Order amending EAS rules.

Herb White
Dissemination Services Manager
National Weather Service

A FEW NEW WEATHER-RELATED EAS/SAME CODES WILL BE IMPLEMENTED ON JUNE 30 2004. THESE ARE:

WEATHER-RELATED EVENT
EAS/SAME CODE

COASTAL FLOOD WATCH
COASTAL FLOOD WARNING
DUST STORM WARNING
SPECIAL MARINE WARNING
TROPICAL STORM WATCH
TROPICAL STORM WARNING

ALL BUT ONE OF THE REST OF THE NEW EAS EVENT CODES ARE FOR NON-WEATHER RELATED EVENTS...WHICH USED TO BE BROADCAST AND ALERTED USING THE CIVIL EMERGENCY MESSAGE /CEM/ EVENT CODE. CEM WILL CONTINUE TO BE A VALID EAS/SAME CODE.

THE NEW NON-WEATHER RELATED EAS/SAME CODES ARE:

NON-WEATHER RELATED EVENT	EAS/SAME CODE
AVALANCHE WATCH	
AVALANCHE WARNING	
CHILD ABDUCTION EMERGENCY	CAE
CIVIL DANGER WARNING	
EARTHQUAKE WARNING	
FIRE WARNING	
HAZARDOUS MATERIAL WARNING	HMW
LAW ENFORCEMENT WARNING	
LOCAL AREA EMERGENCY	
911 TELEPHONE OUTAGE EMERGENCY	TOE
NUCLEAR POWER PLANT WARNING	NUW
RADIOLOGICAL HAZARD WARNING	RHW
SHELTER IN PLACE WARNING	
VOLCANO WARNING	

NON-WEATHER RELATED EAS MESSAGES ARE PREPARED BY LOCAL OR STATE CIVIL AUTHORITIES AND MAY BE RELAYED BY THE NATIONAL WEATHER SERVICE OVER NOAA WEATHER RADIO AND THE EAS AT THEIR REQUEST. THE NATIONAL WEATHER SERVICE DOES NOT INITIATE NON-WEATHER RELATED EAS MESSAGES.

THE REMAINING NEW EAS/SAME CODE IS AN ADMINISTRATIVE EVENT CODE...

ADMINISTRATIVE EVENT	EAS/SAME CODE
NETWORK MESSAGE NOTIFICATION	NMN

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FOR NOAA WEATHER RADIO LISTENERS...

TO PROPERLY RECEIVE AND PROCESS THE SAME CODES AND PROGRAM DESIRED ALERTS...LISTENERS MAY WANT TO REPROGRAM THEIR SAME-CAPABLE NOAA WEATHER RADIO RECEIVER. INSTRUCTIONS ON REPROGRAMMING YOUR SAME-CAPABLE RECEIVER ARE IN YOUR OWNERS MANUAL OR AVAILABLE FROM THE MANUFACTURER OF YOUR RADIO. FOR YOUR INFORMATION...A LIST OF MANY WEATHER RADIO RECEIVER MANUFACTURERS IS AVAILABLE ONLINE AT /USE LOWER CASE LETTERS/:
http://www.nws.noaa.gov/nwr/nwrrcvr.htm

FOR BROADCASTERS...

TO PROPERLY RECEIVE AND PROCESS THE NEW EAS EVENT CODES...BROADCASTER/S EAS ENCODER/DECODER EQUIPMENT MUST BE UPGRADED TO IMPLEMENT MANY OF THE CHANGES IN THE FCC/S REPORT AND ORDER...INCLUDING THE NEW EAS EVENT CODES. IF EAS EQUIPMENT IS NOT UPGRADED...THE NEW EAS EVENT CODES WILL CAUSE UNKNOWN EVENT CODE OPERATOR ALARMS. RADIO AND TELEVISION STATION ENGINEERS SHOULD VERIFY THEIR EAS EQUIPMENT HAS BEEN UPGRADED TO ACCOMMODATE THE NEW EAS EVENT CODES. CHECK WITH YOUR EAS EQUIPMENT MANUFACTURER FOR MORE INFORMATION IF YOU HAVE NOT UPGRADED YOUR EQUIPMENT.

MARINE AREA LOCATION CODES...
MORE INFORMATION ABOUT THE NEW MARINE AREA LOCATION CODES IS AVAILABLE ONLINE AT /USE LOWER CASE LETTERS/:
http://www.nws.noaa.gov/geodata/catalog/wsom/html/marinenwreas.htm

A COMPLETE LIST OF THE CURRENT AND NEW EAS/SAME CODES TO BE IMPLEMENTED ON JUNE 30 2004 IS AVAILABLE ONLINE AT /USE LOWER CASE LETTERS/:
http://www.nws.noaa.gov/os/eas_codes.htm

ADDITIONAL INFORMATION ON THE EMERGENCY ALERT SYSTEM IS AVAILABLE ONLINE AT /USE LOWER CASE LETTERS/:
http://www.nws.noaa.gov/os/nws_eas.htm

FOR FURTHER INFORMATION ON THE NWS IMPLEMENTATION OF THE NEW EAS/SAME CODES...CONTACT:

HERB WHITE
MARK TEW
DISSEMINATION SERVICES
OR

PUBLIC WEATHER WARNING
MANAGER
PROGRAM MANAGER
SILVER SPRING MARYLAND
SILVER SPRING MARYLAND
PHONE:
301-713-0090 X 146
301-713-1867 X 103
E-MAIL: **HERBERT.WHITE@NOAA.GOV** **MARK.TEW@NOAA.GOV**

THIS AND OTHER NWS SERVICE CHANGE NOTICES ARE AVAILABLE ONLINE AT /USE LOWER CASE LETTERS/:

http://www.nws.noaa.gov/os/notif.htm

Tauzin Resigns House Panel Chairmanship

By Charlie Nullia

Louisiana Rep. Billy Tauzin will resign his chairmanship of the House Energy and Commerce Committee. In a letter to House Speaker Dennis Hastert, Tauzin wrote that he will not seek re-election in November, sources said.
http://www.foxnews.com/story/0,2933,110365,00.html

On Thursday, February 26th, Rep. Joe Barton (R-Texas) formally took the gavel of the House Energy and Commerce Committee, where policy effecting broadcasting was frequently shaped under his predecessor, Rep. Billy Tauzin (R-La.). Tauzin is stepping down to become the chief lobbyist for the pharmaceutical industry.

NASA Television Prepares To Go Digital

(From the NASA website)

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

The analog satellite signal used to broadcast feeds and other programming on NASA Television will soon become digital. Digital technology will enable NASA to concurrently broadcast multiple channels of broadcast-quality video, as well as interactive content and other information, all from one satellite transponder.

For more information, visit:
http://www.nasa.gov/home/hqnews/2004/mar/HQ_n04037_nasatv_digital.html

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The Tech Retreat

The annual Hollywood Post Alliance gathering of the best and brightest

By: Todd Mitchell
Reprinted courtesy of HDTV Magazine
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hdtvmagazine@ilovehdtv.com

Held at the La Quinta Resort near Palm Springs, CA the Tech Retreat, an annual Hollywood Post Alliance gathering of the best and brightest in the field of bleeding edge mostly high definition digital video and cinema, is hosted by "Monday Memo" Mark Schubin.

The meeting was opened by HPA President Leon Silverman with a tribute to the late Michael Brinkman of Panasonic Broadcasting, one of the pioneers of HDTV, who died last year. In his memory the HPA has set up the Michael Brinkman Scholarship and Mentoring Fund. Those wishing to contribute will find details at the HPAonline website.

Next up came the Broadcasters Panel, where the non-intentional, not planned and not rehearsed exposure of the (not authentic) anatomical appendage at last Sunday's SuperBowl was still the buzz. Senior VP Bob Ross of CBS revealed that the network had been prepared to mute out any offending language during the MTV half-time show with a paid staffer's finger poised on the button, but that JJ's antics would now require a whole new standard of readiness. For Sunday's upcoming Grammy Awards CBS will now time delay both audio and video by up to five minutes to prevent any further offending of American sensibilities, not to mention the potentially hefty FCC fines that are not unlikely to come down during an election year. Mike Strein of ABC also indicated that they will do likewise for the February 29th Academy Awards broadcast.

Lots of good news on the HDTV programming front. Fox confirmed their 720p roll-out plans for the fall season, but would not commit to a 2004 roll-out of HD NFL. However, the 2005 SuperBowl will be a Fox broadcast and I would be surprised if it isn't a 720p production. NBC will be broadcasting its first NASCAR race soon and hopefully the Olympics as well (perhaps in part on Bravo HD).

The two network HD heavyweights, CBS and ABC, will both continue their coverage of live events in 2004. ABC recently was the HD pool broadcaster for the State of the Union speech. Look for a significant expansion in ABC and ESPN live sports presentations this year, particularly NBA, NHL, and MLB. Even more sports is on the way for CBS as well with further integration of live 5.1 Dolby Digital audio. CBS is also hoping to soon be using the first 1080p60 slow motion cameras from Sony!

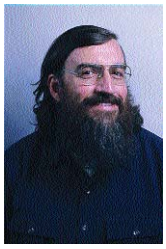
Jerry Butler of PBS discussed their current transition from HD Demo Channel to a full (looped) 24 hour schedule not unlike that of Discovery HD Theater. PBS has a fair amount of HD programming "in the can" and even more SD widescreen content which is

now looking a great deal better with the recent addition of a new generation of upconverters.

Not much news here from DirecTV, although it is no secret that between available bandwidth, compression algorithms, and modulation schemes something is going to have to give if many more HDTV channels are to be added. There was also no indication that the corporate hostility toward the IEEE1394 firewire interface would be changing anytime soon, cable plug and play agreement notwithstanding. IE: Don't look for firewire ported DirecTV HD TIVOs anytime soon.

Sean Wargo of the CEA confirmed what Dale has been preaching here for several years. HDTV is becoming a monster consumer electronic product with extremely robust sales figures forecast for the next several years. This will be fueled in particular when cable and satellite coverage of local HD becomes commonplace. Sales of flat panel displays in particular are growing rapidly with prices continuing to plummet.

Day 2



Day 2 of the HPA Technology Retreat hosted by broadcast engineering guru Mark Schubin. Without a doubt the highlight was the softball round robin tournament at Wrigley Field in the Field of Dreams Park in Palm Springs. The Spatial team led by Pat Griffis of Microsoft went undefeated with your humble correspondent playing first base on a 2 for 2 nights. For those of you keeping score, HDTV Magazine contributor Pete Putman's Bit Depth team was soundly defeated by Spatial 7-3.

There were several outstanding demonstration exhibits here at the Tech Retreat, though only a few may be of real interest to the HDTV consumer. JVC has brought a keen demonstration of their full D-VHS based HD Distribution Suite. This includes their newly released DM-JV600 encoder, SR-VDA300US ProHD Mastering Recorder (basically an HM-DH3000U with a grafted ASI input box on the bottom), and the SR-VD400US ProHD D-VHS VCR (modified from the HM-DH40000U). Security on this digital daily system now contains up to three tiers of password protection. The system has been used on many recent films including Sea Biscuit and Pirates of the Caribbean. Combined cost of the package is well under $30,000. JVC officials are very hush hush with regards to a potential second generation HDV MPEG2 camcorder. However, I was able to learn at CES that plans are in the works for a true 720p/60 recorder, with an introduction that could come as soon as the NAB Convention in April. JVC also has the CU-VH1, a very cool portable tiny mini-DV HDV VCR with a pop-up LCD display. This is a natural traveling companion to an HDV camcorder. Price still not set but hopefully under $2K.

Sony is a signatory to the HDV format (along with Sharp and Canon) and they are also denying comment on rumors that their maiden HDV camcorder will be the first to incorporate the highly coveted 1080i 25mbs format contained in the HDV specs.

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Sony is showing off their new HDCAM SR acquisition and storage system which can deliver a whopping 440 Mbps payload of full bandwidth 1080i with 10 bit video sampling.

Another very cool and inexpensive product is the HDVI-10 from Doremi Labs. This tiny box will convert HD and SD SDI to DVI for use with the 3840x2400 IBM and ViewSonic "Bertha" 22 inch wide screen LCD computer monitors. Forget everything you've heard about these displays not being capable of handling full motion high definition. With the HDVI-10 Bertha delivers honest to God full resolution HD video with ease. Price near $1000.

Mike Tsinberg of Key Digital is showing a box, the HD Hanna, aimed at the high end home theater user that will convert analog component to DVI scaled up to 1080p60 that should also be compatible with these very high resolution displays. Moreover, Hanna contains a true digital path ATSC STB with two firewire ports for archiving to hard disc or D-VHS with on board video scaling. Mike will also be moderating the high definition video disc panel tomorrow which should be a major source of fireworks. No word yet on whether the US Justice Department will be sending along a panelist.

The mother of all demonstrations this year without a doubt is the Cobalt Entertainment NFL in HD in 3D. Details of this system were discussed in a recent New York Times article. NFL Films has contracted with Cobalt and its CEO Steve Schklair to produce an NFL in 3D IMAX production using high definition cameras instead of IMAX film. Steve had just returned from the SuperBowl where he reports having captured both Janet Jackson and the streaker in 3D. Seriously, the demonstration footage shot with this system at a recent San Diego vs. Seattle game was simply astonishing. Coming to an IMAX or Digital theater near you in less than two years!

Day 3

The final day of the fabulous HPA Tech Retreat was hosted by that digital Gandolf, Mark Schubin. The morning began with the annual whirlwind Washington Update from technology attorney extraordinaire Jim Burger who recapped Cable Plug and Play, the Broadcast Flag, the Powell Transition plan for digital television, and the ATSC Tuner Mandate (all familiar territory to regular readers of HDTV Magazine). One interesting tidbit disclosed was the PBS plan to set a unilateral "hard date" for their own shut down of analog transmission and return of valuable analog spectrum allocation at some point before the end of 2006.

Next up was the kinder and gentler face of the MPAA, VP of Technology Brad Hunt. Brad is a true gearhead who remains remarkably current with really cool consumer electronic equipment, several pieces of which he displayed from photos he himself shot at CES. These included several new firewire products like the DISH PVR-921, the Pioneer DV-59Ai DVD-A and SACD decoding receiver, and the Mitsubishi 82 inch Alpha LCOS HDTV.

Later in the day HDTV Magazine contributor **Pete Putman** reviewed the latest developments in Flat Panel Displays. Pete's slides illuminated the many improvements being made to both LCD and plasma, highlighting several new full 1920x1080 panels displayed at the recent CES. Samsung and LG in particular have become major players in both markets and each appears to be trying to outdo the other in the bake off for world's largest HD flat panel display. One other panel that may be worth a second look is the new 55 inch enhanced Alis 1366x768 plasma display from Fujitsu and Hitachi

One of the most anticipated presentations at this year's Tech Retreat was today's High Definition Optical Disc Panel moderated by Mike Tsinberg of Key Digital.

Michael Fiedler of Sony and Don Eklund of Columbia Tri-Star Films extolled the virtues of **Blu-Ray**. All of you high resolution audio fans will be glad to hear as was I that Blu-Ray will incorporate an optional multi-channel high resolution audio program that should prove especially useful for concert material. Recent founding group signees include Dell Computer and Hewlett Packard.

Howard Osa made a rather subdued pitch for the recent DVD Forum endorsed HD-DVD camp, previously known as AOD (Advanced Optical Disc), also a blue laser technology, but using an advanced codec. Since Disney, Sanyo, and most importantly Microsoft appear to be poised to sign on it is a pretty good bet that will be their compression scheme of choice.

Wendy Aylsworth of Warner Bros. made a pitch for the red laser based format rejected last year by the DVD Forum which would be relatively inexpensive to implement.

Pixsonics is promoting a similar system utilizing an additional layer of information on regular DVDs, thus eliminating the need for dual inventory.

Pankaj Topiwala of FastVDO made the case for which is an MPEG 4 variant compression scheme competing with Microsoft Windows Media 9 for designation as the standard on the DVD Forum's HD-DVD. Good luck Mr. Topiwala.

The most audacious presentation of them all was by the relatively unknown Technologies and its Engineering VP Eric Ameres. VP6 is a proprietary but freely distributed codec developed with the financial support of China, as in The Peoples Republic of. That's Red China for all of you cold warriors. First they take over the Moon and now high definition video discs? VP6 has already been approved by the SAC (the Standards Administration of China-and I'll bet you didn't even know that the SAC even exists), and is now "the approved format of the Chinese Central Government" aka the PRC. The On2 website claims VP6 to be the clearly superior HD format in side by side comparisons with Windows Media 9, H.264, and MPEG2.

All indications are that each of these camps are well entrenched and the likelihood of a single unified standard emerging anytime soon is increasingly remote. The stakes are very high, and this saga may dwarf that of Beta vs. VHS many times over. Certainly the

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dream of recovering margins on DVD hardware by changing the rules of the game could be a fleeting one for the

TEN SCREENS, NO WAITING:
THE FIFTH ANNUAL SUPER BOWL HDTV PARTY

By Peter H. Putman, CTS
Reprinted in the Tech-Notes with the permission of the author.

As I sit and write this, it's been a couple days since the big game, although it seemed like a year to set it all up and take it down. A record 65 guests attended the fifth annual Super Bowl HDTV Party and were treated to an exciting presentation of the Patriots – Panthers tilt (plus Janet Jackson's "surprise") in HD on ten different screens – front, rear, and flat panel.

I decided to top last year's offering of eight screens by adding one more in my main theater, as well as projecting the game through the sliding doors to my rear deck. It took about 3 full days to set up all of the screens and HD feeds, of which nine were off-air from KYW-DT in Philadelphia. The remaining feed was KYW's digital signal on Comcast Cable (CH 182).

A variety of technologies were showcased in this event. The centerpiece was a pair of 50-inch plasma displays, Mitsubishi's PD-5030 and LG's MU-PZ5090V, which were located in the living room and dining room. In my kitchen, an LG RU-23LZ21 23" LCD TV was positioned near the coffee service, while a Zenith L30W26 26" LCD TV stood in the front hall near the coat closet.

One again, the bathroom was "adorned" with a small HD set, this time the BenQ Q150. It's a 15" 4x3 LCD TV (the only non-widescreen set in the event) that letterboxed the CBS HD feed. In my family room, the Toshiba 34HF81 held sway (one of two permanently-installed HD sets in my home).

Downstairs, I pulled out my Sony CRT projector for Panasonic's PT-AE500U front LCD projector (1280x720 resolution), which itself was a replacement for another DLP entry that mysteriously stopped recognizing my 1080i RGB feed at exactly 6:00 PM Sunday. In the rear of the theater, I positioned Samsung's HLN507W 50" DLP rear-projector (also 1280x720) for the overflow.

As was the case last year, my workshop was converted into a makeshift theater, thanks to Mitsubishi who sent along their HC3 compact home theater LCD projector (964x544 resolution.) Kirk Hammond of Vutec Corporation came up with a 92" 16x9 Silver Star front screen for this theater (man, was it bright!). But he also sent along a PrismaTec 63" 16x9 screen for the wackiest HD setup of all.

Out on my deck, I positioned Sanyo's PLV-Z2 front LCD projector (another1280x720 design) inside a protective enclosure – an outer cover from a plasma monitor shipping

box. This projector threw an image about ten feet to the PrismaTec screen and pretty much filled the width of my rear sliding doors with an amazingly bright and crisp image. It startled more than a few visitors who came in through my side door to see Jim Nance' oversized HD face staring at them through the glass.

Signal feeds were all over the place. The Mitsubishi plasma took its signal from a Motorola 6200 digital cable receiver, supplied by Keith Boyd of Comcast. BenQ's Q150 grabbed one of my house of-air feeds through a LG LST-3100A terrestrial DTV receiver, as did the LG 50-inch plasma (that tuner was connected to a Silver Sensor antenna).

The 23-inch LG was hooked up to a Samsung SIRT-151 atop my refrigerator, with another Silver sensor serving as its "ears". Meanwhile, a Radio Shack 15-1862 amplified loop UHF antenna was hidden behind one of the chairs in my living room and drove a nice strong signal from KYW to a LG LSS-3200A DirecTV/ATSC set-top, and that fed the Zenith 30-inch LCD in the front hall.

My Toshiba 34HF81 was fed by a Zenith HDR230 receiver (with HDD recorder), and the Sanyo rear-projection setup took its signal from a Samsung SIRT-165 (sitting atop it in the protective enclosure) that was connected to a homemade compact UHF yagi. Downstairs, three Samsung tuners (SIRT-165, SIRT-351, and SIRT-150) fed the goods to the Panasonic projector, Samsung DLP RPTV, and Mitsubishi projector.

It took most of Friday and Saturday to get all of this up and working. Amazingly, the only glitch was in the main theater (figures!) when I had so change from and RGB to YPbPr connection and quickly install the Panasonic box while also welcoming guests and putting out food and drink.

The technical presentation of the game was quite good, except for brief and frequent audio dropouts during the halftime show. This could have originated with the MTV production, but no one really noticed – particularly after Justin Timberlake ripped off part of Janet Jackson's costume to leave her breast in the altogether. (And it was quite visible in HD.)

Only one theater had a 5.1 mix available, but with all of the other speakers on around the house, it sounded like 10-channel surround at times. People didn't move around from theater to theater as much this year – most folks staked out a place to watch the game and stayed put, including one younger visitor who grabbed a seat cushion and parked in my hall closet to stare at the Zenith 30-inch LCD!

Another popular viewing place was at the beverage and condiments table, positioned right in front of that Vutec RP screen. Even though I didn't provide an audio feed, you had no trouble hearing the game with all of the other speakers on, and the HD video was really "in your face".

Folks in the workshop theater almost needed sunglasses with the combination of the Mitsubishi HC3 and Silver Star screen. This was one of the "fan favorites", with the

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others being the Mitsubishi and LG plasmas, and the Sanyo/Vutec rear-projection "performance art" theater.

As with all parties, there are interesting sidebars. A few of my son's friends came over to play cards just prior to the game, and thoughtfully took off their shoes and left them by the front door. Apparently, all of the kids took this cue and added theirs to the pile, making my front hall look like the bargain bin at PayLess Shoes.

Our feature food this year was chili (hey, the game was in Houston!) supplemented by cornbread and buffalo wings. My wife Jackie gets major kudos for going along with this crazy party every year and trying out new recipes. Other guests brought ample supplies of cheese, crackers, brownies, cookies, salads, and other goodies.

Amazingly, there were no more technical glitches after that first projector replacement. I recorded the game to D-VHS and wound up watching much of the second half on Monday morning, when I broke down the equipment for re-packing and return shipments. The LG tuners in particular worked exceptionally well with low terrestrial signal levels and moderate multipath.

HC3 LCD projector, which doesn't even run at full HD resolution. Sanyo's PLV-Z2 and Samsung's SIRT-165 were happy as a pair of clams outside in 25-degree weather; the two boxes just chugged along for nearly six hours keeping those big, bright images up on the screen without missing a beat. I was also impressed with the picture quality on the 23-inch and 30-inch LCD TVs and the

Many thanks are due to those who worked hard to pull off this event. In particular, I'd like to thank John Taylor of LG for graciously providing plasma and LCD TVs and set-top receivers, Lance Braithwaite and Chris Cudina of Samsung for the 50-inch DLP and assorted set-top receivers, Joey Lee of BenQ for expediting the Q150 bathroom TV, Kirk Hammond of Vutec for providing the two screens, Bente Jensen and Tanya Alvarez for the Mitsubishi plasma, Keith Boyd for the Motorola cable STB, Tommy Kashima of Sanyo for the PLV-Z2, Susie Cover and James Chan of Mitsubishi for sending along the HC3, and Jeff Samuels of Panasonic for forwarding the PT-AE500U.
Most of all, I want to thank Jackie for getting past her "oh no, not again" reactions each January and putting together a great menu of goodies. It is a quite a job to stage this event, although I must say I am running out of places in which to install any more HDTV sets. (Maybe I can convince Sanyo to loan me their blimp and project the game onto the snow next year!)

FCC PROPOSES RULES FOR BROADBAND OVER POWER LINES ("BPL")

By Larry Bloomfield

In the February 20th open meeting, the FCC commissioners adopted a Notice of Proposed Rule Making (NPRM) to establish rules for broadband over power lines (BPL).

What this means is that the FCC has proposed changes to its technical rules to foster broadband (Internet) over power line communications, while hopefully safeguarding existing radio services against harmful interference caused by signal leakage. One of the Commission's ideas is to prohibit the power line data encoding equipment from operating on certain critical frequencies such as public safety channels to protect those channels from interference, but what about the rest of communications?

The trouble with the Commission's protection scheme is that the results are uncertain. While the data encoding equipment might avoid using certain frequencies, it is not at all clear that harmonics, intermodulation products and other unsavory effects (caused by non-linear devices that are ordinarily hung across power lines) will not regenerate signals in the "protected" spectrum, thereby contaminating the airwaves.

This in and of itself is a very BAD idea and should not happen! For more, visit these two URLs:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243879A1.doc
http://www.tvtechnology.com/dlrf/one.php?id=329

VIACOM & INFINITY TELL STATIONS: KEEP IT CLEAN OR ELSE

By Fred Lawrence

Viacom president Mel Karmazin read the riot act to execs of all 180 Infinity radio stations recently - including Howard Stern's in New York - telling them they'll be fired if they violate the company's new "zero tolerance" policy on obscenity.

In no uncertain terms, Karazin was quoted as saying during a recent company-wide conference call convened by the top brass of Viacom's radio division: “Don't screw up… If you don't comply, you'll be fired for cause… This company won't be a poster child for indecency.”

Probably still sizzling from his recent command performance before Congress, Karmazin, top dog at CBS, had to testify about the Super Bowl incident. Several lawmakers went so far as to accuse him of chasing profits and ratings with no regard for common decency. Remember: this is an election year.

Infinity is home to Shock Jock Howard Stern and several other controversial radio shows that have been canceled, fined or suspended for sexual hijinks - including Opie &

Anthony after the infamous sex-in-St. Pat's contest.

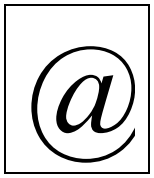
In a blunt memo issued to all Infinity personnel, executives said: “Any station airing programming that has any sexual or excretory content needs to take whatever steps are necessary to make sure that the programming is not even arguably indecent… When in doubt, leave it out. The same memo also ordered all stations to install programming-delay units for on- the-fly censoring "immediately."

FCC RELEASES UPDATE OF OET BULLETIN #69

The FCC's Office of Engineering and Technology has released an update of OET Bulletin No. 69 entitled “Longley-Rice Methodology for Evaluating TV Coverage and Interference.” See the FCC file on this at:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-04-319A1.doc

SYMBOL ADDED TO MORSE CODE

By Larry Bloomfield, KA6UTC



This May we will celebrate the 160th anniversary of that famous massage by Samuel F. B. Morse: “What hath God wrought?” The code has played a very important roll in communications over the years, but has taken somewhat of a backseat with more modern technology taking over. It was only a few years ago that the last of the requirements for shipboard code operators and equipment were done away with and now there’s a move afoot in the last bastion of code, the amateur community, to do away with it for all license grades except the highest: Amateur Extra Class.

Despite all this, there are those who feel that additional symbols are required to communicate. Since we still have some who do use code, it’s not a bad idea to accommodate them with the dots and dashes for a symbol that has found its way in to more modern communications, the “At Sign” or @.

In December, the International Telecommunications Union, which oversees the entire frequency spectrum, from amateur radio to satellites, voted to add the new character. The new sign, which will be known as a "commat," consists of the signals for "A" (dot-dash) and "C" (dash-dot-dash-dot), with no space between them. The new sign is the first in at least several decades and possibly much longer. Among ITU officials and Morse code aficionados, no one could remember any other addition. "It's a pretty big deal," said Paul Rinaldo, chief technical officer for the American Radio Relay League, the national association for amateur radio operators. "There certainly hasn't been any change since before World War II."

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The change will allow ham radio operators to exchange e-mails more easily. That is because -- in an irony of the digital age -- they often use Morse to initiate conversations over the Internet. "People trade their e-mail addresses a lot," said Nick Yocanovich, a Morse code enthusiast who lives in Arnold, Md.

Created in the 1830s by it's namesake, Morse, who invented the telegraph, the electronic signaling system spread across the world, and until the past few decades, it was used widely by the public, industry and government. "It was the beginning of the Information Age," said Gary Fowlie, Chief of Media Relations and Public Information for the ITU, which has its headquarters in Geneva, Switzerland.

When Morse died in 1872, more than 650,000 miles of telegraph wire circled the globe. By the early 20th century, Morse messages were being sent wirelessly,
via radio.

Perhaps the most famous Morse communication is the international distress signal S-O-S. It consists of three dots, three dashes, and three more dots. But with the proliferation of digital communications technologies such as cell phones, satellites and the Internet, Morse code has lost its pre-eminent place in global communications. "There's really no reason to use it anymore," said Robert Colburn, research coordinator for the History Center of the Institute of Electrical and Electronics Engineers. Today it's largely the province of ham radio operators, including 700,000 in the United States. While not all of them communicate regularly in Morse, almost all are familiar with it. Some ham operators wouldn't mind more changes to spice up the language. While Morse code has a period, a question mark, and even a semicolon, it offers no simple way to articulate excitement.

BROADCAST SALARY SURVEY PARTICIPANTS REQUESTED

(It's all in the numbers)

AMFMTVONLINE.com is looking for participants in their 2004 Broadcasting Job Satisfaction & Salary Survey. Over 500 people participated in last year's survey. According to the 2003 survey, the radio industry's most respected broadcasting company, by a substantial margin, was Entercom.

By a narrow margin, PBS was the most respected television employer, followed
closely by NBC.

Overall job satisfaction was down among both the television and radio employees: 36 percent of radio respondents and 42 percent of television respondents reported lower job satisfaction.

In both cases, those reporting lower satisfaction was higher than those reporting higher satisfaction or satisfaction about the same as last year.

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The survey asked respondents several questions about the effect of consolidation on their income, working conditions, benefits, and career opportunities.

In each category, about half the respondents reported that things were about the same as before consolidation.

Despite any issues with their employers, 70 percent of radio respondents and 68 percent of television employees said that they'd recommend broadcasting as a career.

Forms can be completed in three or four minutes. To participate, go to:
http://www.amfmtvonline.com/salarysurvey.htm

NEXT-GENERATION BLUE LASER TERACART LIBRARIES

From: Tracy Laidlaw **Tracy@bwllc.com** and Chuck Larabie **ChuckL@asaca.com**

Based on Sony Pro-DATA Drives, Libraries Record up to 978,600 X-Ray Images and Provide Up To 2.45TB of Data Storage Per Square Foot

During a recent trade shows, ASACA Corporation, will demonstrated their newest addition to their family of TeraCartÒ optical libraries based on Sony's new Pro-Data (PD) drives. Requiring no more than a four foot square of floor space, the new family of libraries offers more than twice the capacity of red laser optical libraries and data throughput speeds comparable to tape-based solutions.

With the ever demand for more compact storage space, this high-capacity, high-performance data storage device is focused on serving broadcast and data storage markets. For complete information on the TeraCart AM Series, visit:
www.asaca.com

FCC turns 70 this week

[from the US Census Bureau]

With the importance of radio growing quickly, President Franklin Roosevelt, this week 70 years ago, ordered the creation of a regulatory body, which became the Federal Communications Commission or FCC.

Almost all electrical and electronic equipment emit radio frequencies and the FCC oversees a myriad of uses of the frequency spectrum, including garage door openers, home alarms and automatic toll collection devices. One of the agency's key areas is, of course, broadcasting. When the FCC was founded, there were just under 600 radio stations in the country. Now, there are nearly 11,000 radio

stations, 1700 television stations and more than 10,000 cable television systems.

You can find these and more facts about America from the U.S. Census Bureau on the Web at **http://www.census.gov**

What the networks are looking for at NAB 2004

From information gleaned from Broadcasting & Cable.

ABC Shopping List:
Production switchers
Audio consoles
Monitoring technology
Wireless HDTV transmission gear
HDTV SNG systems
HDTV slow-motion system
Digital acquisition and storage media

CBS Shopping List:
Video servers
Digital infrastructure gear
Wireless HDTV transmission
HDTV slow-motion technology

FOX Shopping List:
HDTV routers, master-control switchers, and tape machines
Dolby 5.1-channel audio monitoring and master-control gear
HDTV emission encoders
Upconverters and downconverters
HDTV editing systems
ATM encoding, decoding, and control technology

NBC Shopping List:
File-based digital storage media for news production
Advances in video-server technology
Flexible graphics systems
Content-management systems
Upconversion and downconversion gear

DTV Transition Scoreboard

From an NAB Press Release and the FCC data base

The National Association of Broadcasters announced on February 2, 2004 that 26 additional local broadcast stations joined the list of television stations broadcasting in digital, bringing the total number of DTV stations on air to 1,155 in 203 of the nation's

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210 markets. The NAB says that service is extended to 99.42% of U.S. TV Households. It's about time they came out with an up date, but it hasn't happened as of this writing.

In addition, 84.42% of the more than 106 million U.S. TV households are in markets with five or more broadcasters airing DTV and 60.86% are in markets with eight or more broadcasters sending digital signals. This should count for something. This same February 2nd press release says there are 27 markets where ALL the stations have digital transmitters on the air.

British government considering dismantling BBC: report

Britain's government is considering a plan to break up the BBC and remove its independent status in the wake of a bitter row with the state-funded broadcaster over the Iraq war, a report said.

Government papers detailing possible changes to the BBC's structure proposed breaking it into separate regional entities for England, Scotland, Wales and Northern Ireland, The Sunday Times said.

The documents, which the newspaper said had been drawn up by "senior civil servants", also suggested that the job of ensuring the BBC's impartiality could be taken away from the corporation's board of governors.

The BBC, which is independently run despite being financed by public money through a compulsory television license, is currently facing perhaps the worst breakdown in relations with the government in its 82-year history.

The dispute came after a BBC radio report alleged in May last year that Prime Minister Tony Blair's government deliberately exaggerated the threat posed by Iraq's alleged weapons of mass destruction in a pre-war dossier.

Government weapons expert David Kelly was later identified as the anonymous source of the charge. Kelly killed himself soon afterwards.

An inquiry into Kelly's death, led by judge Lord Brian Hutton, concluded last month that the BBC's story had been "unfounded", a verdict which forced the corporation to apologize, with the corporation's chairman and director general resigning.

According to The Sunday Times, the new plans for the BBC will bring accusations that "the government is gearing up to exploit the fall-out from the Hutton inquiry".

Plans being considered include giving a government media watchdog greater control over the BBC's output, closing BBC outlets which are not considered "public service" and even forcing the corporation to share some of its license fee revenue with other broadcasters.

Such a move would most likely prompt public concern, given that the BBC is still generally revered in Britain for being impartial and accurate.

Opinion polls after the Hutton inquiry was published showed that many people considered its verdict a "whitewash", and that they trusted the BBC far more than they did Blair and his ministers.
http://us.rd.yahoo.com/DailyNews/manual/*http:/search.news.yahoo.com/search/news?p=%22Iraq%22&c=&n=20&yn=c&c=news&cs=nw &
http://us.rd.yahoo.com/DailyNews/manual/*http:/search.yahoo.com/bin/search?cs=nw&p=Iraq

The SWE-DISH IPT Suitcase gets Eutelsat type approval

Fred Lawrence

The SWE-DISH IPT Suitcase is the first earth terminal of its type, and one of very few antennas of its size, to receive a Eutelsat type approval (reg. nr. EA-V042). This approval means that the IPT Suitcase does not need individual verification of RF performance prior to entering the Eutelsat system. The IPT Suitcase, now with the Eutelsat type approval, is setting the standard for small, mobile, easy-to-use, broadband satellite earth terminals.

Before issuing the type approval, Eutelsat did a thorough evaluation of the IPT Suitcase and its production, including an on-site review of the production and manufacturing process, an audit of quality assurance work, and antenna measurements on a test range.

The SWE-DISH IPT Suitcase is the world's most compact and quickest-to-air satellite terminal. The IPT Suitcase, with its one-person operation and exceptional technical performance, allows live 2 Mbps broadband transmission from virtually anywhere in the world. The IPT Suitcase is used for everything from ordinary satellite news gathering (SNG) to IP-over-satellite.

Eutelsat operates a fleet of 22 satellites, of which 19 are fully owned, providing satellite coverage stretching from the Americas to the Pacific.

For further information, visit http://www.swe-dish.se/#

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ENGINEERING ACHIEVEMENT WINNERS ANNOUNCED

From: Katie Davenport KDavenport@nab.org

The National Association of Broadcasters recently announced the winners of its Engineering Achievement Awards. The awards, first established in 1959, are given to industry leaders for significant contributions that have advanced broadcast engineering. The award winners will be honored at the Technology Luncheon, Wednesday, April 21 at NAB2004 in Las Vegas.

This year's winners are:

Radio Engineering Achievement Award Winner - Glynn Walden.

Glynn Walden is the Senior Vice President of Engineering for Infinity Broadcasting. Glynn is the visionary of the concept, technical design and economics of AM and FM In-Band On-Channel (IBOC) digital radio broadcasting system. In his capacity as vice president of broadcast engineering for iBiquity Digital Corporation he wrote the IBOC technical and regulatory specifications for a design team of 50 engineers, scientists and technicians who went on to develop the HD Radio IBOC system. Glynn developed the transition plan that allowed broadcasters to move from analog to digital broadcasting with minimal technical and economic disruptions to broadcasters and listeners. To aid in the adoption and implementation of the IBOC system he developed and completed the most comprehensive study ever on the existing levels of interference in the AM and FM bands and predictions of how the interference would increase following the adoption of IBOC. In addition he developed a comprehensive test program for evaluation of IBOC digital performance and compatibility with the existing broadcast infrastructure. In 1991 he helped found USA Digital Radio, a consortium of broadcasters developing IBOC technology. USA Digital Radio merged with Lucent Digital Radio in 2000 to form iBiquity Digital Corporation. Previously Glynn was the vice president of engineering for CBS and Westinghouse Broadcasting where he worked on capital projects including station power increases, facility consolidations and relocations and served as the engineering manager for KYW-AM, Philadelphia.

Television Engineering Achievement Award Winner - Ira Goldstone.

Ira Goldstone is the technology coordinator for the Tribune Company as well as vice president/chief technology officer for Tribune Broadcasting Company. He oversees engineering and technology for the broadcasting group while coordinating projects involving common technologies across all of Tribune.

Ira is recognized as one of the most innovative technology managers in the broadcast industry. He pioneered implementation of electronic newsroom

technology including digital editing, content storage and retrieval. He instituted the early adoption of digital electronic newsgathering (ENG) including one of the first COFDM-equipped helicopters in the country which allowed a number of Tribune stations to provide breaking news coverage from locations previously unreachable with analog ENG equipment.

He is the chairman of the Media Security and Reliability Council Task Force on Future Technologies/Digital Solutions. He is the recipient of Broadcasting and Cable's 2001 "Technology Leadership Award" and is a fellow of the Society of Motion Picture and Television Engineers. In addition, he is a member of the board of the Advanced Television Systems Committee (ATSC) and was the original chair of the ATSC Applications Sub-Committee.

Previously, Ira was Tribune Broadcasting vice president/engineering and technology. From 1983 to 1994, Ira was director/broadcast operations and engineering at KTLA-TV, Los Angeles. Before joining KTLA, he was vice president/corporate engineering for Standard Communications, Salt Lake City, and director/technical services at WCVB-TV, Boston, from 1972 to 1981.

Spare The Regulation: Congress Needs To Clean Up Its Own Act

By Joanne Ostrow
Denver Post Media Critic

Fired up by the lewd Super Bowl halftime display on CBS, some members of Congress are ready to bleep everything they don't like on the tube - including cable.

Cheering them on are family-values activists who want to regulate everything on television, even though cable and satellite TV are currently exempt from federal indecency rules.

They know a hot culture-war issue when they see one.

The saber-rattling continued Wednesday with back-to-back hearings in the House and Senate.

Senate Commerce Committee chairman John McCain, R-Ariz., led the charge, saying he is so offended by what he sees that he backs regulating cable and satellite TV programming. (Somehow "Celibacy and the City" doesn't have the same ring.)

Let's review. The FCC has had the power to censor racy language since the dawn of radio, when it began handing out licenses to operate on the scarce broadcast frequencies. In the 1930s, the agency targeted the words "damned" and "by God." In 1970, it went after a radio station that broadcast an interview with Grateful Dead guitarist Jerry Garcia that included racy language.

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Groping for a definition, the FCC said indecency is language that is "patently offensive as measured by contemporary community standards and wholly without redeeming social value."

Five years later, with George Carlin's satirical "seven dirty words" case, the FCC amended that to say artistic value doesn't matter.

In 1978, the Supreme Court upheld this vague indecency standard, particularly if the language was aired when children might be listening.

In the years since, according to lawyer and historian Marjorie Heins, head of the National Coalition Against Censorship, "the FCC commissioners have used their free-floating indecency standard to censor counter-cultural ideas, sexual discussions and language that reflects a sensibility different from their own. Yet the FCC's censorship power would immediately be recognized as unconstitutional if the medium weren't broadcasting."

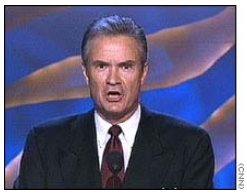
Certain right-wing advocacy groups smell blood in the water since Janet Jackson's flash dance. On Wednesday, the Parents Television Council argued on behalf of parents who evidently are powerless before their TV sets.

"The cable industry needs to voluntarily adopt broadcast decency standards and to offer unbundled subscription packages so families can make viewing decisions based on their own personal values," said PTC president Brent Bozell. "Parents should not be forced to pay for MTV's graphic and offensive programming in order to provide their children with the positive messages and safe harbor of the Disney or Discovery channels."

OK. Sell a family tier of cable channels. Promote the channel lockout feature. Restore the family hour, when the airwaves would be free of "indecent" material early in the evening when children are presumably watching. And use delays on live broadcasts.

Just steer clear of content regulation.

Sen. John Breaux, D-La., who apparently was not aware that cable content is not regulated by the government, said: "We ought to look at the whole spectrum of what we get over our televisions."



Thankfully, FCC Chairman Michael Powell remembered that the courts have ruled that cable and satellite companies enjoy free-speech protections more akin to newspapers.

In the end, FCC Commissioner Michael Copps remains the voice of reason, noting the TV industry should clean up its own act instead of tempting the heavy hand of government to get involved.

Proposed FCC Rules for Digital Cable Systems
From: Jim Pratt **jpratt@stny.rr.com**

The following link will take you to the new proposed FCC rules for Digital Cable Systems.

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-225A1.pdf

Pinnacle Systems gets new Fearless Leader

From a Pinnacle press release

Pinnacle Systems, Inc announced on March 1, 2004 that effective immediately Patti S. Hart has joined Pinnacle as the Chairman & CEO. Patti is replacing Chuck Vaughan who had served as interim president and CEO since November 2003. Ms. Hart has also been elected to the board of directors filling an open position. Mr. Vaughan will continue to serve on the board, a position he has held since the founding of the company.
Patti Hart has been part of dynamic organizations for more than twenty years. Most recently she served as chairman and CEO of Excite@Home. Previously, she was president and CEO of Telocity. Patti joined Sprint Corporation in 1986 and was president and chief operating officer of Sprint's Long Distance Division which had more than 17,000 employees and revenues of over $10 billion. She currently is a member of the board of directors of Plantronics, Korn Ferry International and the Steppenwolf Theater in Chicago and serves on the Chancellor's Advisory Council at Texas Christian University.

Pinnacle also announced that Robert J. Finocchio, Jr. has been appointed to the board of directors by unanimous consent of the board. Bob most recently served as chairman and CEO of Informix and currently serves on the boards of Altera Corporation, Palmsource Inc., Echelon Corporation and is a Trustee of Santa Clara University as well as a dean's executive professor at Santa Clara University's Leavey School of Business.

Public Knowledge Warns Against FCC Harming Digital TV Services

From a press release:

http://www.publicknowledge.org/content/press-releases/press-release-02-13-2004

The Federal Communications Commission (FCC) should make certain that it's "plug and play" rules governing devices that will plug directly into digital TV sets do not leave consumers worse off than they are now, Public Knowledge said in a Feb. 13 filing with the Commission.

Public Knowledge said the consumers could be harmed if the Commission approves rules

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that would allow for reducing the quality of TV pictures, calling that proposal "an instance of industrial policy that is not justified by the scope of the Commission's rule in this proceeding." Public Knowledge said that "downrezzing" (lowering the picture resolution) "is simply part of content companies' 'wish list' to transform the consumer-electronics marketplace into something they believe is more controllable."

Public Knowledge is a public-interest advocacy and education organization that seeks to promote a balanced approach to intellectual property law and technology policy that reflects the "cultural bargain" intended by the framers of the constitution. More information available at**:** **http://www.publicknowledge.org**

CEA Congratulates 2003 DTV Academy Award Nominees

High-Definition Achievements Honored in 12 Categories
(Winners to be announced March 29)

Honoring achievements in all aspects of high-definition television (HDTV), the Consumer Electronics Association (CEA) today announced the final nominees in 12 categories for the 2003 Academy of Digital Television Pioneers (DTV Academy) Awards on behalf of the more than 200 members of the DTV Academy. The 2003 DTV Academy Awards presentation will be held during CEA's Eighth Annual HDTV Summit: Partnership, Policy and Profits at the Washington, D.C. Convention Center on Monday, March 29. Online registration is now open at **www.ce.org/hdtvsummit**.

CEA congratulated nominees in the following award categories: Best DTV Broadcast Network; Best Local DTV Broadcaster; Best DTV Cable System; Best DTV Satellite System; Best DTV Sporting Event; Best Original DTV Material; Best DTV Leadership for Government, Industry and Retailer; Best DTV Journalism; and the People's Choice Award for DTV Programming. Awards are presented to honor excellence in all aspects of digital content development and delivery, analog-to-digital transition leadership and the manufacture of high definition television (HDTV).

ACADEMY OF DIGITAL TELEVISION PIONEERS AWARDS

BEST DTV BROADCAST NETWORK

This award recognizes the broadcast network that has done the most to advance Digital Television through its delivery of HDTV content. Consideration is given to the frequency that HDTV content is made available to local affiliates.
*Awarded to CBS in 2000, 2001 and 2002

2003 Award Nominees:
ABC
CBS
HDNet

BEST LOCAL DTV BROADCASTER

This award goes to the local network affiliate or independent broadcaster who has provided its market with the widest range of HDTV content. Consideration is given to broadcasters who have developed their own HDTV programming and those who have gone beyond just "passing-through" network broadcasting content.
*Awarded to WETA in 2002 and to WRAL in 2000 and 2001

2003 Award Nominees:
KING
WETA
WRAL

BEST DTV CABLE SYSTEM

This award goes to the cable system that has done the most to market and promote HDTV through its distribution of HDTV programming.
*Awarded to Time Warner in 2000, 2001 and 2002

2003 Award Nominees:
Comcast
Cox
Time Warner

BEST DTV SATELLITE SERVICE

This award goes to the direct-to-home satellite service provider that has done the most to promote HDTV through its offerings of HDTV programming and choices for consumers.
*Awarded to DirecTV in 2000, 2001 and 2002

2003 Award Nominees:
DirecTV
Echostar
Voom

BEST DTV SATELLITE PROGRAMMER

This award goes to the satellite programmer that has done the most to promote HDTV through its offerings of HDTV programming and choices for consumers.
*Awarded to HDNet in 2001 and 2002

2003 Award Nominees:
Discovery
HBO
HDNet

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BEST DTV SPORTING EVENT

This award goes to the event that best exemplified the benefits of HDTV in sports content and broadcast in HDTV.
*Awarded to NBC for Winter Olympics coverage in 2002, CBS for Super Bowl coverage in 2001 and to Monday Night Football in 2000

2003 Award Nominees:
ABC Monday Night Football
ABC Super Bowl XXXVII
CBS College Football

BEST ORIGINAL DTV MATERIAL

This award goes to the HDTV program that makes the best use of high definition images.
*Awarded to NBC for Winter Olympics coverage 2002
*Awarded to HBO for Band of Brothers in 2001
*Awarded to Texas Wild, HD Vision and Air Over America, KCTS-TV in 2000 (tie)

2003 Award Nominees:
ABC Monday Night Football
CBS CSI Miami
CBS Grammy's
BEST DTV LEADERSHIP (INDUSTRY)

This award recognizes outstanding leadership by an industry person in the DTV transition.
*Awarded to Gary Shapiro, CEA in 2002
*Awarded to Mark Cuban, HDNet in 2001
*Awarded to Dick Wiley,Wiley, Rein & Fielding in 2000

2003 Award Nominees:
Bryan Burns, ESPN
Mark Cuban, HDNET
John Taylor, Zenith

BEST DTV LEADERSHIP (GOVERNMENT)

This award recognizes outstanding leadership by a government official in the DTV transition.
*Awarded to FCC Chairman Michael Powell in 2002
*Awarded to U.S. Representative Billy Tauzin (R-LA) in 2001
*Awarded to FCC Commissioner Susan Ness in 2000

2003 Award Nominees:
Hon. Rick Boucher, U.S. House of Representatives
Hon. Lee Terry, U.S. House of Representatives
Michael Powell, Chairman, FCC

BEST DTV LEADERSHIP (RETAILER)

This award recognizes outstanding leadership by a retailer in the DTV transition.
*Awarded to Best Buy, Circuit City and Tweeter (three-way tie) in 2002 and to Circuit City in 2001

2003 Award Nominees:
Best Buy
Circuit City
Sears

BEST DTV JOURNALISM

This award recognizes the most accurate, frequent and consumer-friendly coverage of DTV technology, marketplace, programming and overall transition.
*Awarded to HDTV Magazine in 2002
*Awarded to Mike Snider, USA Today and Greg Tarr, TWICE in 2001

2003 Award Nominees:
TV Technology
TWICE
USA Today

THE PEOPLE'S CHOICE AWARD

The People's Choice Award is the first and only DTV Academy Award voted on by the public and recognizes viewers' favorite HDTV program.
*Awarded to HBO for The Soprano's in 2002

ABC Monday Night Football
CBS CSI Miami
HBO Six Feet Under

* The 2003 awards will be presented during a special luncheon at CEA's HDTV Summit, March 29, 2004 at the Washington Convention Center. To register for this event, please visit www.CE.org/hdtvsummit.

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Regulatory Face-Off

April 20, 2004 • 4:00PM - 5:00PM
Las Vegas Convention Center N245

 **Kathleen Abernathy** FCC Commissioner	 **Michael Copps** FCC Commissioner	 **Kevin Martin** FCC Commissioner
 **Jonathan Adelstein** FCC Commissioner	 **Michael Gallagher** Acting NTIA Administrator	 **John Cochran** ABC News

http://www.nab.org/conventions/nab2004/sessiondetail.asp?id=1202199

FCC RELEASES TENTH ANNUAL REPORT ON VIDEO COMPETITION

The sands continue to shift in the way Americans receive video programming. Local telephone companies, for the most part, have failed to create "video dial tones" while direct broadcast satellite services, which first became commercially available in 1993, have become the most significant national competitor to cable TV. For further information on video trends, see:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243261A1.doc

COMMISSION PROPOSES TO FINE CLEAR CHANNEL COMMUNICATIONS $755,000 FOR APPARENT VIOLATIONS OF INDECENCY AND PUBLIC INSPECTION FILE RULES

This forfeiture is the highest ever proposed against a broadcast licensee, according to the FCC, and was determined in part by "Clear Channel's history of transgressions relating to the broadcast of indecent material over stations licensed to its subsidiaries." The proposed forfeiture includes $40,000 for CC's apparent failure to maintain certain required documents in the public inspection files of the stations in question.
http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-243249A1.doc

ATI Delivers Personal Video Recording To The PC For Every Budget

By Larry Bloomfield

Three new ALL-IN-WONDER devices also offer easy video editing and amazing video graphics for great game play. Although I don't play much more than the Solitaire that comes with my operating system, I have to say that the other functions of the ALL-IN-WONDER(R) 9600 series video card is probably the finest I've ever used in my computer. It does more than any other I've owned and I've been having fun editing some of the DV tapes my son has sent me of my grandchildren. It's easy to use and the quality of the pictures on my monitor have never been so sharp.

I've been able to watching TV on my PC. Although the over the air signals I receive via our local translator suck big time (not that I have an opinion on that), I do feed the output of my Dish Network receiver into the video ports and I get amazingly clear and sharp pictures. The first time I tried that configuration out, my wife was ready to come down on me for buying a new TV that she felt we didn't need. I needed a new video card and it was in the budget. When she found out how affordable it was, I was out of the doghouse.

I understand that the secret to the video quality is the ALL-IN-WONDER(R) family of video graphics cards. ATI Technologies Inc. (TSX:ATY) (NASDAQ:ATYT) announced the ALL-IN-WONDER(R) 9600XT, ALL-IN-WONDER(R) 9600, and ALL-IN-WONDER(R) 9200 sometime last month and I had to be one of the first on my block, county, state to have one. I'm not disappointed.. These new graphics cards offer exciting personal video recording of favorite television programs, easy-to-use video editing, and amazing graphics for great gaming experiences at prices for any consumer's budget. For drill, I recorded a made for TV movie on my hard drive after which I deleted the commercials. Wow! It worked great. Of course I immediately deleted the feature after I had learned how to do the editing. I certainly don't want to have any hassles with any copyright people.

The family of best-in-class multimedia video cards, featuring ALL-IN-WONDER(R) 9800 PRO, now includes several new additions. ALL-IN-WONDER 9600XT delivers more multimedia features for customers by offering the fastest RADEON(TM) 9600 series performance with a graphics engine clocked at 525 MHz and 128 MB of memory running at 650 MHz. This new multimedia computer card includes FM-ON-DEMAND(TM) to receive and record favorite FM radio stations, dual VGA monitor support, the second generation and completely redesigned REMOTE WONDER(TM) II, integrated DVD authoring and burning, and MULTIMEDIA CENTER(TM) 8.8.

http://finance.lycos.com/qc/news/story.aspx?story=200401261101_BWR__BW5411
http://finance.lycos.com/qc/news/story.aspx?story=200401261001_CCN_0126004n
http://www.ati.com/companyinfo/press/2004/4728.html

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LARGE NEW CROP OF MALWARE UNLEASHED

From: Norman MacLeod **gaelwolf@waypt.com**
http://www.gaelwolf.com

Gaelic Wolf Consulting
Computer Security Alert

Due to the nature of at least one of the recent crop of malware, we've expanded this mailing to include some addressees who do not generally subscribe to our alerts. We hope that you don't mind our doing so in this instance.

Since the end of last week, a rash of new worms/viruses has been unleashed. While most of you are able to keep up with these sorts of things because you are keeping your anti-virus applications updated, there's a new twist that you need to know about for at least one of the current crop. The malware payloads of Bagel.F and Bagel.G are particularly worrisome because they are contained in passworded zip files that the malware author asks you to run on your system. The social engineering on this is quite clever, and passwording the malware file prevents anti-virus applications from getting rid of the infected attachment. We received the following e-mail message just a few minutes ago...

Dear user of "Gaelwolf.com" mailing system,

Our main mailing server will be temporary unavailable for next two days, to continue receiving mail in these days you have to configure our free auto-forwarding service. Pay attention on attached file. In order to read the attach you have to use the following password: 52465.

Best wishes,
The Gaelwolf.com team
http://www.gaelwolf.com/

As you can see, the message purports to come from us. The thing is, there's nothing wrong with our mail server, and it isn't going offline. The infected attachment is a passworded zip file. If you run the file, you're going to unleash the malware on your system.

If you receive a message like the one above, from us or from anyone else, WHATEVER YOU DO, DON'T CLICK ON THAT FILE, AND DON'T USE THAT PASSWORD!!! We didn't send it, and it's very highly unlikely that any of your other legitimate correspondents are sending messages like this, either. There's something else interesting going on in the malware theater of war that we think is worth passing along...

One of the pieces of malware released into the wild in the past few days attempts to disable MyDoom.A and MyDoom.B as part of its repertoire. Several in the anti-virus community think this indicates that there's some rivalry going on in the malware development world. While this kind of destabilization of their life in the shadows could,

at first blush, be seen as a good thing in some ways, it's still highly disconcerting that their games are going to be played out on our business and personal computer systems and the Internet. As they become more competitive with one another the security of our computers is likely to become more at risk than ever.

As ever, keep your anti-virus application fully updated. Don't open unexpected file attachments, and be real careful even with those you are expecting. We all have to become much more cautious about falling for the social engineering the malware authors are using today. The one that landed here this evening wasn't written all that well, but could easily catch some folks if they aren't actively looking for these things to happen.

Let's all keep our eyes open!

http://www.gaelwolf.com/boss.html
Norman J. MacLeod
President
Gaelic Wolf Consulting

(**Editor's Note**: *We have seen this type of message. We've even seen messages purportedly sent from our own e-mail address that we did not send. Beware*!)

Job Show

TECHNICAL SUPPORT ENGINEER NEEDED

A broadcast equipment manufacturer is looking for someone to step into a technical support position. For a detailed job description and contact information, please visit our jobs page:
http://earthsignals.com/jobs/
From: CGC communicator

ORBAN IS LOOKING TO HIRE A CUSTOMER SERVICE ENGINEER

Orban is looking to hire a customer service engineer to work at our factory in sunny San Leandro, California. This person should be an experienced broadcast engineer with particular expertise in computer networking and audio editing systems. Full particulars are found at

http://orban.com/orban/about/pages/careers.html

Bob Orban

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BILINGUAL SERVICE ENGINEER.

SUMMARY OF QUALIFICATIONS: Bilingual Service Engineer with six years of expertise in Audio and Video equipment maintenance.

Strengths include: repairing, supervision, Quality Assurance, and calibrating professional broadcasting Sony Audio and Video equipment.

Most resent job: Sony Electronics Inc. Fremont, CA. Associate Service Engineer 1998-2003 Fluent in Spanish.

Contact: **JoseTrotter@aol.com**

RADIO BROADCAST ENGINEER NEEDED - NORTH SAN DIEGO COUNTY AREA

This opening is for a contract engineer and includes upcoming transmitter projects. For more information, please visit the jobs page at**:** **http://earthsignals.com/jobs**
(CGC Communicator)

BROADCAST ENGINEER

Nashville, Tennessee. Shop At Home Network, LLC. is in search of a Broadcast Engineer to join our team of professionals. This individual will is responsible for the maintenance, design and installation, and 24 hour call out repair of all production and transmission equipment required by a network television facility. For more information and to apply, please visit us online at **www.shopathometv.com/careers**

CHIEF ENGINEER

Media General Broadcast Group
www.mgbg.com

WTVQ-TV, Lexington, Kentucky is looking for a Chief Engineer. Applicant should have formal electronic training and 10+ years of television experience. Strong computer skills on multiple broadcast operating systems is required. Proven experience in supporting an aggressive news organization is a plus. Ideal candidate is highly organized and can juggle multiple projects. Send resumes and salary requirements to Human Resources, P.O. Box 55590, Lexington, KY 40555 or email to **hr@wtvq.com**
. EOE M/F/D/V Pre-employment drug screening.

ASST CHIEF ENGINEER

Are you tired of not being appreciated and never getting a 'thank you' from your boss after a hard day at work? Are you tired of working in a non-professional, thankless environment? South Central Communications Corp and WAZE-TV, WB19 is seeking an experienced Asst. Chief Engineer who wants to follow our lead in doing things right. This position is responsible for maintaining studio and transmitter broadcast equipment and ordering and installing new equipment. IT experience helpful. 3-5 years experience as a broadcast technician required. Accredited technical degree helpful. Please mail resumes to: Lyle Schulze, G.M., WAZE-TV, WB19, 1277 N. St. Joseph Ave., Evansville, IN 47720 or e mail: **lschulze@southcentralcomm.com**

Obituary

Vincent Edwin Clayton

Vincent Edwin Clayton 1915 ~ 2004 Vincent E. Clayton, age 88, passed away February 6, 2004 of causes incident to age. He was born in Salt Lake City on August 17, 1915 to Edwin and Lilly Clayton and married Nyoma Mae Gatherum on July 1, 1936 in Salt Lake City. Vince loved spending time with Nyoma at their summer home along side Pineview Reservoir in Odgen Canyon where they entertained family and friends. He also had a great love for skiing and did not give it up until his mid-sixties. Vince was great with his hands and enjoyed fixing just about anything especially electronics. Vincent was a member of the LDS church and a long time member of the Salt Lake Kawanis Club. He also was a member of the National Society of Professional Engineers and served one year as president of the local chapter. Vince graduated from South High in 1933. He worked for KSL radio at their transmitter site west of the SLC Airport. His interest in electronics became his career and he attended the University of Utah where he earned a BS degree in Electrical Engineering in 1946 and was named Chief Engineer for KSL. He worked for KSL and later Bonneville, Inc. for forty years and retired in 1980 as Vice President of Engineering. He was one of the primary contributors in bring KSL-TV on the air in July 1949. Vince is survived by his sister, Arlene (Skip) Webb of Salt Lake, his son Larry B. Clayton of West Jordan and eight grandchildren with thirteen great-grandchildren to their credit. He is preceded in death by his wife of 60 years Nyoma, and his eldest son David K. Clayton. Graveside services will be held February 11, 2004 at 1:00 p.m. in the Salt Lake Cemetery 4th Ave and N Street. Vince's family want to thank the staff of the Murray Care Center and the employees of Hearts for Hospice for the special care he received the final months of his life

Marianna Cobb

Marianna Cobb, of Moffett, Larson & Johnson, passed away in mid-January, with services held on January 20th in Arlington, VA. Marianna worked with a number of well-known consulting firms over the years, and as one of the very few female engineers

in a male dominated industry, Marianna mentored many young engineers. I am proud to have had the opportunity to have partnered with her and to have learned from her as well. J.M. Bixby, (Bix), W4BIX,

David Andrew Bergen, "Buz"

Born, David A. Piskura, July 17, 1944 in Cleveland, Ohio, died February 22, 2004 of complications caused by cancer, at Tarzana Medical Center, Tarzana, California.

Bergen was a highly skilled television and electronics engineer. He attended James Ford Rhodes High School, on Cleveland's West Side, and he started his career at WEWS-TV in Cleveland, Ohio in 1960. During his career, he served as senior engineer and project director for the NBC Network; he was operations manager for KWHY-TV, an all business news station in Los Angeles, he was also a project manager for the Telemundo Television Network, and was president and part owner of Global Digital Broadcasting, Inc.

Bergen served with distinction as a Lieutenant in the U.S. Air Force.

His wife Rachael, three daughters, Deanne, Heather and Dana, survive him. He is the brother of Carol, Thomas F., and Mary Lou Piskura and the son of Andrew and Dorothy Piskura.

Classified

3 ea. Altec 9440 800 Watt mono/400 Watt per channel stereo Amplifiers, 2 ea. 1/3 octave Altec equalizers, 1 ea. Altec sub-bass 35 Watt filter/amplifier and one roll around equipment rack that seems to way a ton when it has to be lifted.
Interested parties contact: **Stuff@Tech-Notes.TV**

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Information & Education

Some info on the G-line developed

by Georg Goubau
http://www.rubytron.com/pdf/RadWire_history.pdf

BACKGROUND INFORMATION from RUBYTRON
117 North Ridge Street,
Port Chester, NY 10573
E-mail: info@rubytron.com
Internet: www.rubytron.com/

A History of Surface-Wave Technology The RadWire(tm) Distributed Antenna System (DAS) is based upon the technology of Surface Waves. The particular surface waves are electromagnetic waves that travel or propagate along the surface of a cylindrical wire conductor. The existence of this type of wave was theoretically predicted by A. Sommerfeld in 1899, when the invention of wireless communication (spark telegraphy) by Marconi was still in its infancy. But it was not until the 1950's that Georg Goubau further developed the theory and demonstrated the first practical surface wave transmission line (SWTL).

It consisted of a pair of surface-wave launchers at each end of a wire coated with a dielectric. The launchers, which usually took the form metal cones, converted the RF signal from coaxial cable to the surface-wave on the wire conductor. In honor of his pioneering work, the SWTL was also called the G-line. The single-wire G-line could transmit microwave RF power with less loss than coaxial cable, and therefore was considered by the U.S. Army Signal Corps as an alternative to coaxial cable and waveguide. However, tests soon revealed that the transmission line did in fact radiate or "leak" some of the power transmitted along the line. Therefore, it was not suitable for most military applications since the signals could presumably be intercepted or subjected to interference.

Later in 1959, Dr. T. Haffner proposed several commercial applications for the G-line in the VHF and UHF bands. One application was for the low-cost, low-loss distribution of TV signals to fringe-area communities, and a few systems each several miles long were actually deployed along telephone poles. One system in Helena, Montana brought the TV channels into the town. However, it was observed that the TV signal could be received by pointing a TV antenna at the wire. This only confirmed what the Army had observed, that the G-line did radiate, i.e. it did behave as a "leaky" transmission line. Eventually, the huge demand for high-performance coaxial cables and waveguides drove down the costs of mass production to levels where there was no longer a need for an unconventional albeit lower-cost method for transmission of RF and Microwave signals.

In the 1980's the SWTL surfaced again. Open patent literature indicated that Defense

Contractors had proposed using the line as a microwave link from an aircraft that towed a deceptive electronic countermeasures (DECM) device known as a towed-decoy. An enemy missile would be attracted to the decoy instead of targeting the aircraft. The idea was that a single wire could serve as both the physical towline and the electrical transmission line. However, the availability of optical fiber and the laser technology to impose microwave signals on a lightwave carrier via intensity modulation offered better solutions.

The late 1990's saw the widespread deployment of mobile communication networks by the Cellular and PCS Carriers. As these networks proliferated, one of the ever-present problems was providing adequate cell phone coverage indoors, specifically in office building environments. This necessitated the wiring of buildings with networks of coaxial cable and antennas in order to bring-in the signals from the outside and provide service within those structures. It was during this time that Rubytron began investigating surface wave technology for application to in-building antennas. The SWTL certainly had many of the desired characteristics such as low transmission loss, a leaky radiation characteristic, and low cost. It could compete favorably with leaky coaxial cable, which was already being employed for in-building wireless coverage. Thus began the development of our product RadWire(tm)?, a shortened name for Radiating Wire.

Features, History & Opinions

My observations

By: **Burt I. Weiner**

Measuring field Strength: I use Delorme's Topo USA with 3D-TopoQuad data disks for AM proofs. Using Topo USA is great for navigating but is not the same as the 7.5" Quads. Using the 3D-TopoQuad data disk/s will allow you to run with 7.5" Quads. I can easily run this in my laptop with the GPS receiver on the roof of the car plugged into the USB spigot. I rarely do this alone. I have a buddy who can navigate well and is very computer literate. I drive and measure and he navigates and logs. We work well together and get along like the "Grumpy Old Men" we really are.

I began using the Delorme products several years ago. Coincidentally I had to run a new proof. I discussed this with the applicant's consultant who told me he wanted me to run off the paper maps and not GPS. He agreed that if I wanted to I could use the GPS only for navigating. All of the radials and distances agreed between the maps and the TopoQuad disks except on one radial. As I recall it was two sheets away from the transmitter site that the GPS and the maps started to diverge. At the time this really concerned me that maybe there are problems with TopoQuad data disks. We spread the

maps out on my kitchen floor and taped the edges together to maintain alignment. With a straight-edge we discovered that where the lines drawn (by the consulting company) overlapped near the ends, the continuing line took off a few degrees off from the previous end of the line. I contacted the consultant and ever since, when doing work with him he has me use the GPS. He is now very comfortable with the GPS.

Of course you will still need to document the actual position so that you can reliably return to that location. For that I still use a written, verbal description of the measurement location sheets in the traditional way that now include coordinates and the reference such as NAD-27. The thinking is that with GPS and the written description you should have no problem finding the exact location. If it's appropriate and no one's looking I'll paint a noticeable white marker "X" using street marker spray. The problem arises when you are running an older proof that was done by maps alone. They may not be as accurate. You need to use the points from the original proof. In this case I also log the same way as I do a new proof using GPS but at the original measuring locations.

Again, I use the TopoUSA program with the 3D-TopoQuad data disks. I use to use the 3D-TopoQuad program but I find that the TopoUSA program has a lot of benefits such as being able to do all of your various radials and distance markers on different layers so that you can turn them on or off independently at will. I draw the radials on one layer in blue and distance circles in red on another. On another layer I tag all of the intersections of the radials and distance circles with labels such as "241.5-15". That tells me that I am on the 241.5 degree radial at a distance of 15 Km. The advantage is that when you are zoomed in real close you don't have to zoom back out to be sure of the radial and distance. At locations where I make actual measurements I tag the spot on the map. In addition I am able to e-mail the data portion to whoever needs the info. Of course they need the same program and data disks to look at the maps.

In my opinion the Delorme products have a slow learning curve. They are not the most user friendly but with a little time and playing you can become quite fast at using it. Their help menu seems to have been written by and for someone who already knows the program and only needs a reminder. Even so, I personally believe that are the best thing out there so far. They certainly makes life so much easier.

JJ and the Super bowl: I keep hearing the word "offended" associated with this incident. I don't think anyone was really offended. I do believe that it was in poor taste and shows the licensee/s lack of control and probably lack of concern about the example they allow being set.

The real problem is that it set's a new reference point. Young kids, not to mention some adults, mimic what they see. Look at any of the "Barbie" toys and TV adds with kids and make up not to mention "Ken". I have a daughter. She's now 32 but during her pre-teens all of this stuff put before them was a problem. You can do your best to try and raise kids but they still go to school and live in the outside world and there's a lot of influence out there. That's what we should be concerned with. TV and Radio do share in the responsibility and rightfully deserve partial credit for the results. This really does matter.

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The FCC responding to violence, freak shows etc.: I don't look at it as the FCC is trying to regulate programming. I look at it more that the FCC is attempting to rein it in. You've got to admit, a lot of it is pretty sick. Between the violence and the freak shows TV has gone downhill and is going after the lowest common denominator and their wallet. Radio is not much better and I'm sure it will go the same way as TV once it has the capability of adding picture.

I have to say that I've lost a lot of respect for the FCC and Congress for what they have allowed to happen to Broadcasting. Maybe the common decency part of our society is ticked off enough that "Our Leaders" are starting to feel the loss of Votes - their driving force. I really believe that people who are screaming about their First Amendment Rights are among the most dangerous to our society. This is an abuse of Rights and a lack of responsibility towards our society. This is not what Freedom of Speech is about.

Believe me, I'm no prude but I know where and when to draw the line for my own behavior.

Burt -- Burt I. Weiner Associates
Broadcast Technical Services - **biwa@earthlink.net** K6OQK

Are you ready to pay for e-mail?
Charles Cooper
CNET News.com

Sometimes, all it takes is someone to speak the unspeakable to force a break with conventional wisdom. So it was that Bill Gates triggered a firestorm of protest by suggesting that the best way to stem the growth of spam would be to require people to pay money to send e-mail.

Gates--by virtue of his celebrity status--elevated the question to the front pages when he said at the World Economic Forum in Davos, Switzerland, that a fee-based system could eliminate the spam epidemic within the next couple of years.
That drew a predictable thumbs-down from critics, who said the idea was simply impractical, if not downright antithetical to the libertarian ethos that helped shape the Internet. Well, as a former U.S. President was wont to say, "Let me say this about that."

To be sure, Gates' comments constituted downright heresy. This is the Internet, after all, not Interstate 80, going west. But is the proposal so off-the-wall that it should be dismissed outright? The idea of charging to send Internet messages has actually been talked about for quite some time. The basic idea being that the current system makes it too easy to spam and that freight charges would deter the scammers who depend on receiving a handful of responses to their mass spam blitzes.

This isn't the only idea under consideration. The Internet Research Task Force is working

to come up with a sender notification system that better distinguishes between the senders of legitimate e-mail and spammers. The system would let Web domain owner's control how their e-mail suffixes get used. In this way, recipients could determine whether someone was faking their return address. Elsewhere, various filtering and legislation have also been put forward in the last several months.

Pretty cool idea. But as promising as it sounds, sender notification remains a work in progress. It is also unclear whether the technology will work as advertised.

As far as filters go, spammers can always ratchet up the volume to try to overwhelm the system. And while antispam legislation is sure to win votes, you can pass the most draconian law imaginable, and it won't have the slightest effect: The bad guys can always relocate to Bimini or beyond.

So, out of desperation, the question of charging money to send e-mail has now been taken up by the digerati. Forrester Research late last year argued that electronic postage had the best chance of stemming spam. "Even one-quarter of 1 cent per message would crush spammers' business model," Forrester wrote. Maybe, maybe not. While that may take care of the fly-by-night operators, what about the big spammers who have the deep pockets to bear the added expense?

Taxes also have a kudzulike knack for climbing. There's no iron-clad guarantee that electronic postage costs would not subsequently spiral. That would only hurt legitimate businesses and individuals--no fault of their own. In addition, every Internet service provider on Earth would have to comply--hardly a sure bet. If some refused to go along, spammers could simply switch servers and carry on business as usual.

Still, for all its warts, charging might just be the least bad option. I'm not fully convinced. But after weeding out another several hundred organ enlargement come-ons from your in-box each morning, isn't it time to think outside of the box?
(**Editor's Note**: *Charles Cooper is the executive editor of commentary at CNET News.com.*)

How reliable is DLP technology?

From: Bert Goldman **bgoldman@firstbroadcasting.com**

People question the reliability of DLP technology because it relies on the rapid mechanical switching of thousands of microscopic mirrors. In fact, extensive testing has shown that DLP technology demonstrates a Mean Time Between Failures (MTBF) in excess of 100,000 hours. In addition, real world experience from the 1,000,000 projectors based on DLP technology that have been installed since early 1996 confirms its very high reliability."

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That's more than 10 years of 24/7 operation and then you just change the DLP "chip". Of course, you will have changed the lamp in the thing ten times at $200 a whack by then!

For more, visit: **www.dlp.com**
Bert Goldman
First Broadcasting

Rycote Microphone Database

From: Barry Rueger **rueger@COMMUNITY-MEDIA.COM**

Hi- folks - this was new to me, but seems worth the time it takes to register.

Rycote's excellent microphone data database, previously only available by buying it, seems to have gone online for free. They do require registration.

http://www.microphone-data.com /

This is an excellent resource because the specs for different mics are at last available using the same measurements, as opposed to comparing two mics from different manufacturers using measurement systems which differ and/or emphasize the flattering characteristics.

Barry Rueger
Community-Media.com
http://www.community-media.com
AIM ID: AppalBarry

Willkie's Words of Wisdom

By: **John Willkie**

Memorable Moments

Television has the ability to create memorable moments. For some, events like the broadcast of "Roots" are the most important to them. For me, it's the way that television, and radio, can bring us real events and provide the images and sounds that will be burned into our brain forever.

For me, this last year has had two such memorable and unscripted moments. The first was the Columbia crash. I didn't watch the landing live (having been abed for only a few hours by that time), so I missed the memorable moments. I can recall replays of white streaks across the sky. By the time had awoken and turned on the news, that's all TV was showing: unexplained and inexplicable snippets, shown in a loop. That was a missed opportunity for me.

The second memorable unscripted moment I was awake for: it was the live announcement by Amb. J. Paul Bremmer of the capture of Saddam Hussein. And, the people who missed that LIVE moment REALLY missed out: none of he replays do it any justice.

The clip as shown now has Bremmer saying "We got him" and the image of Saddam flashing on the 16x9 monitors behind him. Powerful, sure, but not as powerful as the live moment.

Just after the image splashed on the screen, several Iraqi journalists jumped to their feet, and shouted out in Arabic "Death to Saddam! Long Live Iraq" to the image. Paul Bremmer was startled, to say the least. This went on for perhaps 30 seconds.

If it hadn't happened at 4:00 a.m., I might have captured it. This time, I had been told by the radio left on overnight of the news of the capture, and had turned my set on to see the thing. I was sure glad I had done that.

Tivo users, as part of the compromises that they make to enjoy non real-time television, likely missed the most memorable moment of the year. Because, it wasn't scheduled, and even if you had set the keyword "Saddam" in your unit, most likely the EPG read "Ronco presents" or something else at 4 a.m.

This disconnection from reality will expand as the tempo, and depth, of real-time news coverage increases in coming years, not to forget how to navigate virtual channels. There will be no guarantee in the future, for example, that stations will always preempt main channel programming to present news bulletins.

The solution is to have live PSIP, and for the PVR units to have the ability to process PSIP, DVB-SI or whatever in real time.

[PSIP] Use It Or Lose It

John Willkie

One of the clear advantages that digital broadcasters in the DVB world enjoy is that they have a unified system of digital broadcasting.

That is, their system has much more mandatory elements than the ATSC system, and all receivers are required to support all transmission modes and a wider "feature set" than are required of 8-VSB receivers.

I like to think that's because the licensing model in most (Australia excluded) DVB countries harkens from the legacy of state-controlled broadcasters, and bears little resemblance to the commercial-dominated, willy-nilly, robust and competitive nature of U.S. broadcasting.

Other than using 8-VSB transmission and Dolby AC-3 audio, there are very few

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mandatory elements of ATSC broadcasting in the U.S. Sure, PSIP was once (and will no doubt be again) required in the U.S., but a Democrat-controlled FCC decided not to even make the video parameters in table three mandatory, ostensibly because it would constrain broadcasters in the future. (I could talk about how this was really a Sony (1080i) vs. Panasonic (720) vs. computer (320x480) makers battle, but that would lead off topic.

I was reminded of this because of a conversation in the bar at the recent Hollywood Post Alliance conference that I participated in. The representative of one consumer equipment manufacturer and a network engineering executive were talking about how one TV station in the U.S. was creating problems.

The problems, these knowledgeable folks said, was that the station's encoder was conflicting was emitting a system time time and the station's PSIP generator was also generating system time tables, which would cause problems if it happened. Without giving away too much, I explored this problem with them.

The consensus was that the station needed to buy a new transport stream encoder, one of the most expensive pieces of equipment at that or any other station. There was talk of taking up a collection.

The consensus was wrong.

Oddly enough, I was rather familiar with this station, even though I had never watched it or visited it. The Chief Engineer and I have been in contact for more than three years on the problems and opportunities in DTV. (The Chief engineer and the CE representative are on this list.)

Having discussed this situation with the CE subsequent to the conversation, I cannot say what the particular problem is, but it is not a clash of system time tables. It might be the EIA-708 closed captions the station transmits, but I'm willing to bet that the gigabytes of transport stream data the CE company recently downloaded from the station might help the CE manufacturer understand why their units and their units alone have a problem with this particular station.

That's what amounts for real-world conformance testing in much of the U.S. DTV world. One network owns every DTV set and DTV tuner in existence (and buys all new models when they become available) and tests them off-air before changing anything in their transport streams, but most DTV broadcasters "test" in the real world -- by transmitting and seeing what happens. Ain't pioneering fun?

So, to get back to the chicken vs. egg problem. Even if it were mandatory, PSIP (and the ATSC suite of protocols) contain elements that, while difficult to implement at this time, future broadcasters will no doubt want to exploit. The list is not short (directed channel change, data broadcasting, logos in PSIP, interactive services) and as Jerry Whitaker of the ATSC outlined in his HPA presentation, are only going to get longer, while

integrating with the DVB and CableLabs environments.

That is, if broadcasters employ the systems ahead of consumer desire (and promote them), so that CE companies can have something to build to and test against and work the bugs out in the "test environment."

I had the opportunity at HPA to show my directed channel change controls to Merrill Weiss, the "father of directed channel change" in the words of a friend. I was told that I would not have the first implementation of DCC, but that no CE Company had even announced plans to explore the possibility of directed channel change in their receivers.

(For those who may not be up to speed, directed channel change will empower broadcasters to insert "zoned" commercials or programs seamlessly into their systems, and will enable receivers to switch back to a "main channel" when they turn off a virtual channel, among many other interactive features. That is, if and when it is implemented in receivers and to the extent DCC is employed by stations.

Of course, few stations are making money off their DTV transmitters these days. But, the CE manufacturers ARE making money off DTV. And, we all know that "if it ain't required by the law or marketplace" there is little or no reason for CE folk to include nifty features in their sets. The CE folk (actually, CEA, led by one manufacturer) just spent the better part of two years arguing straight faced (until they were LAUGHED out of court) arguing that they should be able to offer Digital TV sets that were not able to receive Digital TV signals, and that the FCC had no legal authority to require digital TV sets to receive digital TV signals.

I don't want to pick on the CE folks (too much). We all know that they attempt to shave pennies off fabrication costs, and many of these features will cost more than pennies. However, only broadcasters and viewers/consumers will suffer if useful DTV features are not included in sets. (The CE folk will just say: buy a new receiver.)

Broadcasters can -- when (hint) the equipment is available and installed, institute directed channel change on a millisecond's notice. However, it's at least two years from the commitment through design, fabrication, production, distribution and sales, before such features can be useful to viewers.

Sony, apparently alone among the CE manufacturers, has yet to make a commitment to including what I would call basic PSIP features into their DTV sets. On the other hand, Panasonic calls up San Diego broadcasters to complain about non-compliant PSIP. (Sony and Panasonic design and build most of their DTV sets in San Diego, Tijuana or both.)

And, this is not just about directed channel change or PSIP.

If broadcasters are not provided systems and services to exploit simple PSIP in a cost-effective and seamless manner, they will not be able to fully exploit their audio and video

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services, let alone to begin to exploit the full suite (read: the future) of digital broadcasting and retain or expand their position in the media pie.

Non-RF Channels

From John Willkie

I see the non-RF channels that stations can use (currently 70-99, eventually 52-99) as creating an interesting area. At the recent HPA Tech Retreat, I was informed that one station group has already staked out a major-minor channel in this area.

The group is Tribune, and they have occupied, apparently on a unilateral basis (we have a Tribune station in San Diego, and NOBODY else in town seems to know of this development) channel 75-1. Not just in San Diego, I am told, but in all Tribune markets.

That is a bold move. Not to occupy the channel, but to do so without apparently attempting to coordinate the use of this off-broadcast channel with other broadcasters who they share RF with, AS IS REQUIRED by the A/65 specification. Some might even say that it is a restraint of trade, but that probably goes too far.

Now, Tribune and their head of Engineering Ira Goldstone (whom I have never met or talked with but whose reputation -- no, legend -- precedes him) is well known for making clear, bold and significant moves.

Aside from what the specification says, there are two ways to implement non-RF channels (at least on my examination). One is the way Tribune has done it: Unilaterally. The other is the way I envision it: through a independent, third party broker that administers these channels in a fair, reasonable, and non-discriminatory manner. I'd offer EtherGuide Systems as such a broker, and not just for stations that eventually use my metadata and PSIP generators.

What is the problem with Tribune's move is a simple one: any station in their markets (or even stations in adjacent markets where the RF overlaps that of a Tribune station) can decide that the SECOND station will use 75-1, and there is nothing that Tribune will be able to do about it.

What will happen is that Tribune will lose their channel, and the resulting interference can/might/will cause moderate to severe problems in many to all DTV sets out there. From what I have heard of major-minor channel clashes on RF channels (from stations even hundreds of miles apart) is that some receivers will refuse to pick up any channels, some will tune one signal over the other, some will not be able to pick up one or more other program services on one or more of the interfering transports, and some receivers -- you'll just love this -- will alternate between the two channels based on Rayleighian and Gaussian variances in the relative signal levels at the receive point.

Now, some of the above are simple early implementation issues with receivers, and only by exercising some of the currently unused aspects of PSIP (directed channel change also comes to mind) NOW will broadcasters be able to use them at any point in the future.

But, it appears to me, that Tribune has, in this respect, somewhat less rights that a good old-fashioned squatter on these channels. Since Tribune is a big player in the TV marketplace in all it's markets (TV stations, newspapers, and the Tribune Media Services TV listings syndicated to newspapers AND the formerly Times-Mirror TV advertising syndicate that accompanies those listings) so it is not in a legal position to defend it's actions in a regulatory or civil hearing by saying it needed "shelter from the storm."

Stations need to exploit non-broadcast channels, but starting a landgrab is not something that a major player should be involved in.

I have quite a few ideas for how my "brokerage" would work in this aspect. First off, such channels cannot be warehoused, and they have to be used on a regular basis or the reservation is automatically surrendered. Stations should be able to "bid" on the use of a particular major-minor combination in real time. Other stations that share RF (this is very complicated: translators may or may not have to be included depending on how the translators carry or combine program streams and whether the translators are co-owned with the primary station) would get an immediate notification, and would have a certain period of time to either reject or approve the new assignment. In the case of no response within the allotted period, the assignment would be deemed to be accepted by that station.

I could go on, but I don't want to clue in too much the people who see PSIP as a simple hardware play as to the future I envision. I'll just say it's dynamic.

I showed the outline of this model to a few folks in the RF business last week at HPA. It was just an outline, because I thought it was a 2007+ type of issue, and I figured I had a year or so to flesh it out.

At this point, I will not send a letter or attempt to initiate an inquiry at the FCC about this matter, but I know that several others are contemplating such an action. If an FCC proceeding is initiated, I can say that my plans will be fully fleshed out and offered to the FCC to resolve this matter before it becomes a critical issue. (Did I mention that I'm a member of a minority group under Federal rules, and that I am well known -- by face and reputation -- in the TV and Audio Services divisions of the Media Bureau?)

Also, I should point out that I have only good thoughts towards Tribune. They adopted and put into service (apparently with excellent results) a competitor's PSIP generator, and did so before I was ready to market, and I was informed of this more than 6 months ago. Frankly, that saved me from having to brace up for a meeting with Mr. Golstone and his staff before I was ready. Or worthy of his consideration. And, like them, I admire bold moves.

Okay, that's today's sermon and homily – John

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More on Transmission line charging

By Bob Groome

www.Jampro.com

I finally got through to Dr. Bot, retired from Dupont. He was one of the design chemical engineers involved in the development of PTFE Teflon.

He explained that CF2 CF2 and on out 100,000's times of modules is Teflon.

When heated to 500-600°C (as when an antenna or coax system is dissipating a lightning hit, or a transmitter is sustaining a high power arch)

The CF2 etc... becomes a double bonded CF2. (from the heat)

Then you get C + CF4

Which becomes CF3 (gas) and C (carbon - soot)

This is evidenced by the Teflon showing signs of having melted and reformed. Probably will have soot/carbon all over it.

CF2 + CF2 in AIR gives HF+ CF2O (carbonate Fluoride)+CO2. You don't get plain C (carbon) as long as there is enough air for the molecules to attach to

But:

With Nitrogen, there is no air

During the heat, you can't get HF+ CF2+CO2. Instead you get HF+ CF2+ Carbon!

Bottom line: use dry air, never Nitrogen in a coax / antenna system where lightning could cause an arch ... or if it is possible to get an arc from the transmitter and have it sustained for more than a second or two.

Dr. Bot expects that the air (or Nitrogen) in the coax/antenna system would have it's pressure go way up for a few mili seconds or longer caused by the heat from the lightning or arch. I mentioned our pop off valve. He said that's good for air, as the more air, the less chance of carbon.

He also said that there is no way to prevent some carbon/soot even with dir air or pure oxygen. Impurities, etc. MAY still leave some Carbon from lightning or sustained arching. But much less carbon will be developed if you use air to pressurize the system compared to Nitrogen.

Bottom line: use dry air, never Nitrogen in a coax / antenna system where lightning could

cause an arch ... or if it is possible to get an arc from the transmitter and have it sustained for more than a second or two.

He was very pleasant to talk with and is willing to talk more if we need it.

Bob Groome
Jampro Antennas and RF Systems, Inc.

About the SBE

(**Editor's Note**: There's been a lot of back and forth about the SBE in some of the internet forums that abound. SBE is an important educational link and it works, if you work it. The following are some interesting highlights of these posts.)

The TOP TEN REASONS

You want to attend the next SBE meeting
From: Gary Stigall **gstigall@kfmb.com**
sbe-sd@broadcast.net

10. Your dog just tips his head when you tell him about that new automation system you just finished installing.
9. Hoping to cop a buzz if they serve that Chianti again.
8. Following through with your New Year's resolution not to be such an anti-social geek.
7. Just miss the smell of those downtown gutters.
6. The babes really knock you out. (What babes?)
5. Haven't had a free meal downtown since showing up at the Salvation Army in old duds at Christmas.
4. You mean with the equipment you're showing I can make money by just driving around?
3. Just to spite that arrogant bastard from my competitor.
2. The Simpsons this week is a rerun anyway.
1. Opportunity to miss the Top Ten Honey-do's at home.

Also from Gary Stigall
gstigall@kfmb.com

Pop quiz time--take out your pencils. Here we go:

(1) What power efficiency should you expect to get with a new constant efficiency amplifier?
(2) How much of an improvement is that over the first generation IOTs?
(3) What does MSDC stand for with respect to vacuum tube amplification technology?
(4) Are CEAs used in newer satellites?
(5) What are the advantages and disadvantages of tubes vs. solid-state amplification?

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Pencils down.

How'd you do? If you couldn't answer those questions, you would now, had you attended the mini-course on CEAs and modern UHF tube technology given by L-3 Communications at San Diego SBE Chapter 36's recent meeting. This program is part of a nationwide tour, L-3 Communications gives in a short 45-minute presentation on the subject with the usual Q&A afterward.

What Does the SBE Have to Offer?

From: Richard Rudman, CPBE, Fellow
SBE Past President, 1985-1987

(From a post on the internet) Craig Healy wrote in part: "Simply put, the SBE has never offered me anything I truly needed. Yes, it's a great organization, and well respected. But I don't need it

"What would make the SBE useful to me is if they took on some of the trappings of a union. For example, if a station tends to grind engineers up and spit them out, then put that station on a grey list. This can be simply an advisory list, with the comments of the affected engineer."

Craig and others:

As a national Past President of SBE I had to respond to some of your comments and give you another slant on the value proposition of SBE as I see it. I do not expect to change your mind, but some of the comments you made might tend to influence others who do not know very much about SBE.

SBE is first and foremost a professional society. SBE owes it's heritage to the venerable Institute of Radio Engineers (IRE). When the membership of the IRE decided to change the name to the Institute of Electrical and Electronic Engineers (IEEE), some members who were broadcast engineers thought it was time to form a separate professional society. Specifically, a bit more than 40 years ago, John Battison, then the editor of BE Magazine, wrote an article in BE proposing just that. A fellow by the name of Charlie Hallinan who lived in Binghamton, New York read the article, contacted John and founded Chapter 1. John Battison became SBE's first national President.

Through SBE's youth and teen years, the original value proposition could be classified as fellowship and education.

As SBE approached adulthood, the value proposition was expanded and clarified. When the FCC abolished the First Phone, SBE had a ready-made answer in the form of the Certification Program. SBE stepped into the vacuum the FCC left. SBE's Certification Program is above reproach for many reasons. It got that way because of the original

toweringly high standards set for it by some of SBE's founders, as well as other members who have served on committees to formulate questions and proctor exams. I would submit this would be hard to do this without a lot of dedicated members.

In the early 80's, SBE National became interested in the frequency coordinating committee effort we started here in Southern California. I had a little bit to do with that. Today, there are well over 100 coordination entities around the country, many under direct Chapter supervision, but all working within the SBE framework. Presto! another vacuum SBE stepped in to fill.

When EBS was being overhauled to eventually become EAS, SBE identified this as another area where regional expertise and national coordination would benefit the industry. Notice I said "industry," since I firmly believe that there are still a few remaining things that are good for the Industry and for SBE and its members.

The SBE FCC Liaison Committee makes thoughtful, well-researched, well-written and technically sound Comments and other filings before the FCC. There is no other broadcast entity anywhere that does as many filings on as many broadcast-related subjects as does SBE. You may remember the large companies used to do this, but now you see them only rarely when a particular ox they have interest in is gored. I invite you to go to the SBE website and look up a few, read them, and tell me if there is not something there that we have said to the FCC that is supportive of some of the sound technical principals I am sure you yourself subscribe to. Or, tell me you find nothing of any redeeming value to you as a broadcast engineer.

A few words on your suggestion that SBE become more union-like. First, SBE took a bad rap in New York City and some other places for years because some management people thought we were a union. We were not then, never have been, and never should be. We would instantly lose credibility with the FCC, support from a number of vendors, not to mention the loss of SBE's tax-free status.

One other comment on your suggestion. While I am not a lawyer, all Trade associations and groups are warned by their lawyers not to engage in creating any kind of a list, be it black, red or grey for any purpose that collects names on individuals or companies to steer members and others away. Black or even grey lists historically have been linked to restraint-of-trade legal issues that at best get unions and trade associations bad press, and at worst get them in deep and expensive legal trouble. If you don't believe me, check with your favorite lawyer, or look up some union history on Google (keywords -- Union & blacklist).

There are other aspects of the SBE value proposition I will not go into detail on such as life and insurance cost breaks, discounts on entry to the NAB, exchanging ideas and learning at Chapter meetings, and more. SBE is now about to celebrate its 40th anniversary at the NAB in April. We are very proud of what was set in motion all that SBE has become, and what some of us have dome along the way to do our best to keep that idea alive.

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I invite you to reply on or off list. You have started what I hope grows into a very healthy discussion. Leaders in the SBE should be thinking about and seeking input on all the time on how to serve members even better -- especially appropriate as SBE celebrates its 40th anniversary. I would also like to know (off list if you want) if you have ever been an SBE member.

The sheer rewards and pleasures of giving a little something back to our peers makes SBE "worth it" for many members. After all, this is the industry that has supported us, and, if we are honest about it, our peers are who we learned our trade from. "Giving Something Back" some of what you have received is not a bad thing for most of us. I think even with the recent (and in my personal opinion overdue) membership dues increase, SBE membership is still a great value.

Richard Rudman, CPBE, Fellow
SBE Past President, 1985-1987

Do The Rules Matter Anymore

From: Larry Fuss lfuss2@cox.net

Do the FCC's technical rules matter anymore? It seems like they are more concerned with Janet Jackson showing her boob that with any technical matters, which is what the FCC was supposed to regulate in the first place.

1) We have two FMs here in the Las Vegas valley that are licensed to the tiny town of Dolan Springs, Arizona, which is about halfway between Las Vegas and Kingman, Arizona. I drove through Dolan Springs earlier this week and could not pick up either station in their community of license. There was no signal whatsoever, not even a weak one. Yet, both stations are loud-and-clear here in Las Vegas, where both have on-channel boosters. Something seems awfully illegal about this.

2) KJAL-AM in American Samoa continues to operate on 580 kHz; even though they are licensed for 585 kHz (that part of the world utilizes 9 kHz spacing). After they went on-air, they discovered that all the digitally-tuned radios wouldn't tune 585, so they took it upon themselves to move to 580. They even falsified their 302 form. Even though it violates international treaty, the Commission has done nothing.

3) I filed a Petition to Deny against one of the Bishop Willis station in 1996 on the grounds that it had been off-air for years without Commission authority. The Rules say if you fail to operate for 12 consecutive months, your license if forfeited, yet the FCC failed to rule on it at all, it's been pending for 8 years. Renewal applications in that state were just filed again, and I note that the good Bishop failed to file, so I guess the station will die on it's own. But why did the Commission ignore it?

4) The PD and GM of another station here in Vegas cannot seem to comprehend what constitutes a legal ID. I've e-mailed them both, but they're still running the non-legal ID.

I've always followed the Rules and it pisses me off when I see other stations not doing it and getting away with it. Am I wrong to feel this way?

Larry Fuss, President
Contemporary Communications -- Las Vegas, NV 89143-1397

ATI Delivers HDTV Reception and PVR Capabilities for PCs

From: John Golitsis **john@nbtelectronics.com**

HDTV broadcasts can be enjoyed on the PC with the new HDTV WONDER announced today by ATI Technologies Inc. North American customers will be able to tune in and watch high-definition television (HDTV) programs on the PC without having to purchase an expensive TV that could cost more than $2,000. HDTV in North America offers up to 5.5 times the pixels (dots that comprise the screen) as standard TV resolution resulting in amazing picture quality.

In addition to supporting analog NTSC (National Television Standards Committee) cable, the HDTV WONDER add-in video card allows consumers to experience the new ATSC (Advanced Television Systems Committee) digital, free-to-air HDTV broadcasts without having to subscribe to cable or satellite subscription services. HDTV WONDER offers the best advanced personal video recorder (PVR) on the PC today enabling consumers to watch, pause and record both analog and HDTV programs -- powerful features beyond the capabilities of most current consumer and PC-based appliances. Additionally, HDTV WONDER leverages the PC's capabilities by offering the ability to archive content directly to DVD for personal use. HDTV WONDER complements ATI's RADEON line of video cards that deliver the industry's only full HDTV decoder and display capabilities.

"ATI is simply unrivaled in the analog PC TV space," said Godfrey Cheng, Director of Marketing, Multimedia Products, ATI Technologies Inc. "In 2004, ATI will continue to perfect our analog technologies and introduce new digital television (DTV) products such as HDTV WONDER -- concrete proof of how ATI's investment in television and video technologies is coming to fruition. By leveraging our core DTV technologies and the power of the PC, ATI has delivered a PC product that has more functionality than many of today's more expensive consumer electronics devices."

Consumers in the home and office can now receive DTV content in more places than ever before. Popularly rated TV programs, such as major league sporting events, soap operas, and prime-time shows, are all broadcast in HDTV. The National Association of Broadcasters reports there are currently 1,155 DTV stations on air in 203 markets, serving 99.42 per cent of United States' TV households.

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HDTV WONDER incorporates ATI's own NXT2004 VSB/QAM receiver designed to receive off-air DTV signals in a wide variety of challenging terrestrial signal reception environments. NXT2004 integrates features such as advanced multipath cancellation, tuner control and all-digital carrier recovery circuitry that eliminates the need for any other external components. When combined with the award-winning software application suite, ATI's MULTIMEDIA CENTER, ATI can deliver a product that will simply revolutionize the PC and the North American TV market.
For more, visit:
http://www.dtvprofessional.com/2004/02_feb/news/cw_ati_hdwonder.htm

Blank CDs vs. Blank Music CDs

By Larry Bloomfield

Why can't I use a regular blank CD to record music onto on a standalone recorder and can a blank CD or CDR be encoded by an end user so it will work in a standalone recorder?" The reason for asking this question is that we have a number of real-to-real disks and cassettes we'd like to make into CD so we can play them on any CD player.

Observations and motivations: Music CDs cost more than regular blanks. If you can clone a CD in your computer, why can't you make a CD from scratch that will play in any CD player or in your car?

Simply put, the difference between the two is that data is placed on the Music disc at the time of manufacture by a stamper. You can't take a blank data CDR and transform it into a Music CDR for use in standalone recorders. Audio CDRs have data on them in the manufacturer's fields which indicate a royalty has been paid which allows them to be used for audio purposes. Computers can record audio CDRs but don't honor the mechanism. They can also record audio on a data CD. This is what the standalone audio recorder reads to determine if it is Music or not.

As to recordings sounding better coming from the standalone recorder as opposed to the PC burner, this is interesting and may be related to the fact that the PC burner is probably recording at a much higher speed than the audio recorder, which is usually 1x,2x or at most 4x.

How I got around this issue is that I am able to record in real time a wave file onto my hard drive. I then us a bit of software that converts this wave file as it burns onto the normal, garden variety, plane vanilla CD the CDA file that music CD players want to see. I tried it and the CDs work in my car, my fancy CD player on my stereo and everywhere else I've tried it and the CDs sound good. If there was tape hiss in the original, there it is on the CD. One of the bits of software I used had an equalizer that could be used to roll off the high end where the hiss is, but that would take away some of the nuances I like from the music.

The software? Believe it or not, it was mostly shareware I downloaded from the internet. I got 15 day or 30 day trial versions. If I liked it, I paid the $19.95 or $24.95 by credit card and am using it to my satisfaction.

In closing, I'd like to thank Andy Marken – **Marken Communications** for his kind help and the Verbatim company for their really great blank media I used for all my tests. Now that we're on our way to getting all our real-to-real and cassette tapes archived, archiving the VHS tapes of my grandchildren on DVD is next. I'll tell you how I did it and how you apply that technology is up to you. - Good luck and see you on the Road Show.

5th Generation VSB Receiver Chip

From: Frank Eory **Frank.Eory@motorola.com**

(**Editor's Note**: *Wouldn't it be nice if someone could unambiguously describe what constitutes any generation of receiver, especially after the 4th?)*

This generational nonsense was coined by Zenith during the dark days of the VSB-COFDM wars, as in "things are getting better with each new generation." It was just as meaningless back then as it is now.

The "1st generation" 8-VSB receiver was the Zenith 'blue rack' that won the transmission standard award during the Grand Alliance days. The first consumer STBs that Sinclair tested and rightfully complained about were arguably "2nd generation," although it's possible some of them simply copied the A/54 reference design (perhaps imperfectly), which would make them the same design vintage as the 'blue rack'.

Zenith applied the "2nd generation" label to the group of chips that included the Motorola MCT2100, Nxtwave NXT2000 and possibly the Broadcom BCM3510.

Third gen might be categorized as those that first managed reception of severe multipath fading at ~20 dB C/N margin. Ok, so maybe the Motorola, Nxtwave and Broadcom chips were actually 3rd generation, by your definition.

Fourth gen, IMO, would be Linx and similar, showing meaningful use of multipath energy to assist with signal strength.

Perhaps, but how do you count prototypes that still haven't become products in this generational horse race? The new LG chip is supposedly "5th generation". So if/when the Linx technology becomes available in chip form, is it still "4th generation?" If I ran their Marketing department, you'd better believe I would call it "6th generation." Easily justifiable, since it will be introduced after this new LG chip.

I would hope 5th gen would add good dynamic multipath reception capabilities to 4th gen attributes, perhaps by finally using the long ignored training sequence?

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Sure, anything is possible. I recently had the opportunity to play with a STB that has a supposedly "4th generation" VSB chip in it. I sat this box next to a 5-year old MCT2100 prototype receiver (one that a famous New York DTV test site apartment dweller would recognize) and did a little informal testing with a few different antennas. I was surprised to discover how well this new consumer STB performed. It maintained solid reception under all the same conditions (antenna position, etc.) -- and failed under all the same conditions -- as my old prototype receiver. "Wow," I thought. "The 4th generation has caught up to the 2nd generation."

All of which is further proof of the stupidity of this generational labeling. Different engineers take different approaches to solving problems, and it is rare that one finds a solution that is completely superior on every measured parameter to another solution. Newer doesn't always mean 'better' -- sometimes it means 'cheaper', sometimes 'better in some respects, but worse in others' and sometimes it just means 'newer'.

-- Frank

Can I do this without being offensive?

From: Donna Halper dlh@donnahalper.com

A friend of mine recently asked me, how many black (African American), whatever, engineers there are in radio. Her contention was there were not that many, and wanted to know why.

So – greetings from your friendly media historian. I am not a black engineer, nor do I play one on TV, but I know there have been black radio engineers since 1919. The first evidence of this is that Howard University in Washington DC began offering courses to train black engineers for the Signal Corps. Here in Boston, there was a black engineer (and ham radio pioneer) named Bill Gould as early as 1921. An organization of black ham radio operators called OMIK notes (and I have confirmed this) that another pioneering ham and engineer of color was Everett Renfroe, also in 1921. In NY, Miles Hardy started the Pioneer Radio Club circa 1922 to train black engineers, and in Baltimore, Roland Carrington started the Banneker Radio Club circa 1923 for the same purpose.

I realise this trip down memory lane doesn't answer the question, but my point is there have always been a few back then, with society being segregated, many black engineers only worked for all-black companies, perhaps because they couldn't get hired anywhere else. Today, I know that Radio One has black engineers working at a couple of their stations, and I know that a couple of so-called "urban" stations have black engineers, but most of the black engineers I know do not work in radio. My theory about this is that they can make more money working in other industries, but perhaps other list-members can address this.

Recording the VCR's Swan Song

From: Monty Solomon monty@roscom.com

By DAVID POGUE
Correction Appended

PREDICTING the future of technology is a fool's game. Still, every now and then, you recognize that a product is so obviously superior to what came before it, the writing is on the wall in block letters big enough for Mr. Magoo to read. The graphic elegance of the first Macintosh spelled the demise of DOS, the crisp sound and compact size of the CD unmistakably suggested the vinyl record's decline, and the convenience of the digital camera set off a tailspin in film sales that continues today.

Don't look now, but another machine you probably own is on its way out: the VCR. Its disruptive successor is the cheap set-top DVD recorder.

Now, the phrase "cheap set-top DVD recorder" may strike you as two oxymoron's in one. First of all, in this era of flat screens that are only two inches thick, the last place you'd set a set-top box is on the top of the set. (Nominations are welcome for a better term that distinguishes these TV-room DVD recorders from the ones that you attach to a computer.)

Second, there's that bit about "cheap." Everybody knows that set-top DVD recorders are expensive. The best ones include a hard drive for TiVo-like flexibility but cost $600 and up. DVD-only models start at $400 or so. Logic and pundits have long maintained that the VCR's funeral rites won't begin in earnest until DVD-recorder prices fall below $300 - and now they have, led by Gateway's AR-230 and a few rivals from lesser-known companies.
HYPERLINK "http://www.nytimes.com/2004/02/05/technology/circuits/05stat.html"
http://www.nytimes.com/2004/02/05/technology/circuits/05stat.html

From the Pen of Mendrala

By: Jim Mendrala

Adult HDTV Comes to DirecTV

Once upon a time I had DirecTV, but someone talked me into Dish Network so I could get the CBS HDTV feeds, the NASA Channel and Starband Internet access (it will be a long time before we get cable or DSL in our area), so I became a Charlie Ergan supporter. Kind of glad I'm no longer supporting DirecTV as that satellite TV service launched a weekend block of high-def adult movies following the Super Bowl. Guess they needed Janet and Justin for a lead-in.

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That's what we need—another channel of smut and sex. It isn't enough that we are inundated with "Reality" shows on all the over-the-air TV networks and the plethora of "Adult" channels on cable and satellite, but now our new technology, HDTV, has a place for folks to wallow in porn also.

Shortly after the game, the Direct kicked off its first offering of adult movies in HDTV. The films, which will come from Playboy and the Spice channel, and will be available on DirecTV's Pay-Per-View channel from midnight to 6 a.m. ET. – Don't tell me kids aren't up at those hours too.

The trash on DirecTV's adult HDTV lineup has a home and will air every Thursday through Sunday from midnight to 6 a.m. ET (That's 9 PM to 3 AM her in the west) – Don't understand why the break, but I guess they have to give it a rest some time. Robert Mercer, a DIRECTV spokesman, said the adult fare will be sold in three hour blocks for $14.99 per block, and at that low price, they'll probably make a killing, but it won't be from me – I have a life!

http://www.tvpredictions.com/adult012704.html

Parting Shots

By Larry Bloomfield

The older I get, the less I seem to understand the world I live in. In one breath, a large segment of our society, the FCC, a bunch of self-righteous government officials and others have raised all kinds of hell over the Justin Timberlake and Janet Jackson fiasco during last month's Super Bowl, and yet there are a plethora of satellite and cable channels where one can turn to on a regular basis to see even much more "revealing" fair. There's been so much finger pointing over this one incident that it boggles the mind. Many of our planetary neighbors find it even amusing. The only logical explanation I've heard so far is that it's an election year.

JJ's boobie was exposed for about 1.5 seconds in a long distance shot. It was almost unrecognizable among the smoke and other special effects, but people are outraged. "FCC Chairman Promises Investigation." This is what passes for scandal here in the USA. No wonder Europeans think we're ridiculous.

I ask you: How can something that most of us stare at for the first months of our lives, and get sustenance from, become something bad to look at later on in life? Sculptors and artisan of many disciplines have crafted female breasts as part of what we put on display in our museums and other places of public display: no one raises a fuss about that.

To think that we should be shocked and horrified at such a display is absolute ridiculous. As one Hollywood wag would say: "Grow up!" Don't we have better things to do?

Another thing that appears to be a backlash to all of this is the recent attention and attack on Howard Stern. Here's a guy who appeals to a "certain" audience. He's making his company a ton of money and only recently has his GARBAGE come to light for what it really is. Where were Stern's censors and critics when he began his raunchy "Shock-Jock" shtick? Just because I don't care for Stern's form of entertainment, it doesn't mean that he should be bounced off the air. The same goes for the other Shock-Jock clowns and their tasteless dribble.

Anyone in their right mind knows that there has never been a government in recorded history that has ever been successful in legislating morality. So why are we trying to do the impossible? Aren't there far more important issues facing us in this world than JJ exposing her breast and Howard Stern's trash mouth?

So who are the moral authorities? That's up to you to decide, but please don't choose the government. What I got out of Sociology 101 is that the fundamental unit in society is the family. If the family doesn't provide a solid moral educational environment, we must reap what we have sown. My 65 years of observing does tell me that we sure have sent some mighty mixed messages to our kids. The really sad part of life is that you need a license for nearly everything except for having kids.

Nearly every Holy Book has a Garden of Eden story with its "forbidden fruit." The lure and quest for this forbidden fruit has taken many forms through out history. Perhaps it is this lure to watch JJ's impropriety that attracting almost twice as many viewers as the most thrilling moments on the field during the Super Bowl. This fact is according to an annual measurement of second-by-second viewership in TiVo households. I can just hear it: "Oh that's disgusting…..Let's see it again."

Where do we sanely go from here? According to my American Heritage dictionary, a PORTAL: por·tal (pôr/tl, p r/-) n. is 1. A doorway, an entrance, or a gate, especially one that is large and imposing. 2. An entrance or a means of entrance: the local library, a portal of knowledge.

I'm sure we've all heard television described as a portal or door to the world. Based on this premises and what we've been lead to believe, there's been an increasing large number of unsavory characters on the other side of that door – the TV set. It seems most obvious to me that doors are binary devices: they can be opened or closed. When closed they can be locked, latched, barricaded, bolted, chained and any number of other ways to keep undesirable things from coming through: the TV set has the on/off switch.

The difference between a door and the television is that some one at your door can force their way in, but the television set's on/off switch is a far better lock than thing that Kwickset, Schlage or Yale has to offer.

There is one other action you can take if you don't like what you see besides either turning to another channel or turning off the TV set and that's to avoid buying the sponsor's product and let them know why.

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So when I see headlines like: “The Senate Telecom subcommittee today held hearings on the broadcast indecency matter” and “Jackson's Bare Breast Sparks FCC Probe” I join our European and other worldwide neighbors in laughing at our stupid puritanical reaction to something as simple, natural and beautiful as a breast and join the ranks of those who are saying that they “can't believe that our country is so depraved that everyone gets bent out of shape for showing a breast. What's the big deal? Besides, it proves that Janet Jackson is a girl at least ... Many of us are still wondering about Michael.

Enough! In closing, a good friend of mine and fellow armature radio operator, Ray H. Erickson, WØLTN sent this jewel on to me, entitled ZERO GRAVITY

When NASA first started sending up astronauts, they quickly discovered that ball-point pens would not work in zero gravity. To combat this problem, NASA scientists spent a decade and $12 billion developing a pen that writes in zero gravity, upside down, on almost any surface including glass and at temperatures ranging from below freezing to over 300 C.

The Russians used a pencil.

Enjoy paying your taxes--they're due again soon.

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