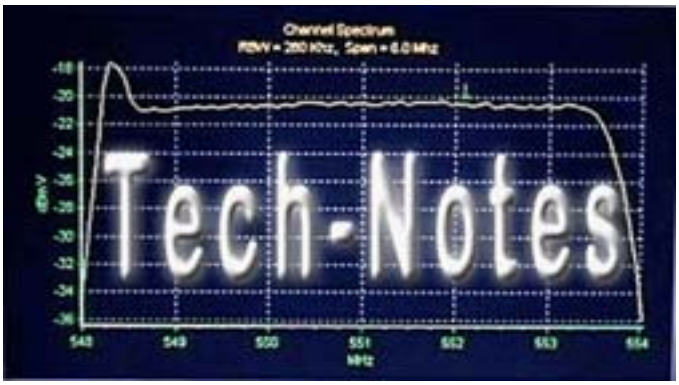

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November 9, 2004
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Our purpose, mission statement, this current edition, archived editions and other relative information is posted on our website.
This is YOUR forum!

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Note: All **Blue** underscored items in this PDF newsletter are working links.
(Click on the Link below to navigate to that section of Tech-Notes)

Editor's Comments

I don’t know about you, but it’s sure a pleasure to turn on the TV and/or radio and not have to hear all the barrage of muck and political rancor inundating us at nearly each and every commercial break. We do live in a great country and it is equally great that we can tout the political positions on the public airways, but from the viewer’s/listener’s stand point, enough is enough.

That said, on the other side of the coin, it is also a windfall for the media. I have no doubt that each broadcast facility relishes the increased revenue during these times of political wrangling. Were it not for the political seasons, ever so often, one can only wonder what our engineering budgets might look like. Additionally the poor folks in our sales departments might have to work a little harder to meet quotas and move the inventory.

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Despite whom you may have wanted to win, the plethora of issues and problems plaguing our industry are still there and probably won't go away for a good long times, if ever. It's all a matter of how they will or won't be addressed in the next four years. Looking at the election results, not only in the White House, but also in the Congress, may tend to sharpen the normally blurred images in one's crystal ball.

First observation is that it appears the conservatives (Republicans) have reaffirmed and solidified their majorities in the House of Representatives and the Senate. This is an important note as it will shed some light on the kinds of legislation affecting media companies as they will continue to have conservative chairmanships.

It is obvious that President Bush's reelection enables the conservatives to have a heaver hand with the FCC. The Commission currently has a 3-2 Republican majority, but Jonathan Adelstein's seat has expired. He's holds one of the liberal (Democratic) seats. When he vacates his office at the end of the year, the conservatives will have a 3-1 majority at the agency until the president finds a replacement. It is not inconceivable to think that this might just take a long time to happen.

Irrespective of who is in Congress or the White House, we will continue to have the same, on-going, systemic problem: Non-technical types regulating a highly technical industry, with little or no understanding of the technical nuances. A good example of this is the recently enacted Broadband over Power Lines. What a mess this is going to cause! It should be a crime for regulatory decisions that are technical in nature, to be based on political agendas.

There are few who'd argue that technological advances are occurring at an exponential rate and Washington policy makers will always think that they need a bigger roll in determining industry winners and losers: issues such as telephone service over the Internet, messing with the Internet (in general), making broadband and service more widely available and the seemingly never-ending transition to digital in both television and radio (iBoc).

Who's going to benefit from all this? At this point it's anybody's guess, but you can almost bet it won't be the little guy – viewer or broadcaster. The big money is on the media conglomerates; the four regional Bell companies, the large broadcast ownerships and so on. It's been that way, what would give you a clue that it would be different? Just remember, nearly all parts of life – especially the government – is like an inductor – yes, an inductor! – it opposes any change in current flow.

One thing that insiders seem to think will happen is an overhaul of the Telecommunications Act of 1996. One clue to this end is the heavy assaults in the area of regulatory decisions and court rulings. In any event it is an understatement to say that many telecommunications regulations defy traditional partisan politics. It's a shame that more regulatory issues didn't arise during the presidential and congressional campaigns. President Bush did say that he was committed to making broadband service ubiquitous by 2007, although he and his aides offered few specific plans to achieve that goal.

You can also bet on administration officials, as well as top regulators at the F.C.C., to take a deregulatory approach to rules governing telephone services over the Internet and you can expect the administration to support efforts to relax rules that have restricted the nation's biggest media companies from expanding, acquiring each other, and entering new markets.

Good for the consumer or not, good for the nation or not, you can expect the administration to continue its policy of approving most proposed corporate mergers as the telephone and other technology industries continue toward consolidation.

The one given that you can expect is that our technical brothers and sisters will be expected to do more work for less money, to put their lives in danger by working exceedingly long hours at transmitter sites by themselves and with no conveniences available to them. You can continue to expect general managers to expect their technical help to know everything about all the equipment, but not give them the time to get training on the new technology they have to work with. And don't be surprised if more and more of the general non-technical maintenance at facilities will fall on the technicians and engineers who are expected to keep the gear working. It's too bad our broadcast technical and engineering industry doesn't have an organization or forum that will go to bat for them and I don't mean a union.

Letters to the Editor

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

From: Edward O. Fritts, President
National Association of Broadcasters
To: The Wall Street Journal – Letters to the Editor:

Don't Leave Millions of TV Viewers Stranded

In his Sept. 27 "Portals" column on the digital television transition "Broadcasting Lobby, Exercising Its Clout, Hangs On to Spectrum," Lee Gomes misses the central point of an orderly DTV transition, which is to protect millions of Americans from losing access to local TV stations that are free of charge to consumers.

There are 73 million television sets in use in America connected neither to cable nor satellite, 45 million of which are in homes that rely exclusively on local, "over-the-air" stations as their sole source of television. These stations provide more than just entertainment; as hurricane-ravaged Florida residents can attest, they provide lifesaving information to communities in crisis.

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Department of Homeland Security Secretary Tom Ridge recently acknowledged the invaluable role played by local broadcasters when he said that "local citizens know they can rely on radio and television stations as a lifeline service in the event of terrorist acts, tornado alerts and natural disasters."

Broadcasters are doing their part to bring the next generation of TV to American homes. We are committed to completing the digital transition, and we stand ready to work with policy makers in support of a compromise that doesn't disenfranchise millions of consumers who could be left stranded by a premature end to analog television.

The Road Show - A Taste of NAB 2005

The Road Show for 2005 is starting to come together. It will cover significantly more venues than any of the preceding tours. To date, we have seventy-four slated from coast-to-coast. The tentative itinerary is posted on our website: **Click here**. Except for our very first venue, Medford, OR, all meeting will be in conjunction with a local SBE Chapter and/or a SMPTE Section. The broadcast community in Medford, OR will no doubt form a chapter to cover the southern part of Oregon and some of Northern California, but it just hasn't happened as yet. As to comparisons from previous tours and this next year, Here are the stats:

	Presentations	Total attendance	Average attendance /venue	E-mail received
2002	31	450	14.5	?
2003	36	1055	28	40
2004	48	1105	23	124
Projected 2005	**74**	**1650**	**21**	**186**

This year, 2004, we were on the road for four months nearly to the day. Next year, 2005, it would appear that we'll be on the road for approximately six months.

Once we get a budget put together, we'll begin contacting manufacturers to see if they'd like to join us. We would want to get a good balance between radio and television manufacturers, but we get who we can. One thing, we will make every effort to have new and innovated technology and not a warmed over version of previous years presentation. There is no more effective way of letting the grassroots know about technology than to take it to their backyard and show it to them, let them play with it and answer any questions they may have about it.

Your input is most valued. Have a particular type of technology, equipment, technique or whatever that you'd like us to bring on the Road Show? Please get your suggestions into us ASAP as most companies are firming up their budgets for next year and we certainly don't want to be left out. E-mail us at: **Road-Show@Tech-Notes.TV**.

News

Switchover to DTV Commitment Date Reached

The broadcast industry has finally offering to commit to a hard deadline for completing the switch to all-digital operation. The most recent groups of stations to sign on to the idea are associations representing CBS and NBC affiliates, who notified the FCC Thursday, November 4th.

The commitment to a set specific deadline was first offered to the FCC in an Oct. 29 filing by the NAB, ABC O&Os, and 17 major TV station groups including Belo, LIN, Emmis, Hearst-Argyle, Tribune Gannet and Media General.

No date was actually suggested, but the broadcasters said they will "work with Congress and regulators to develop a specific DTV transition plan in the coming months that will bring an orderly end to the transition."

For the complete story from Broadcasting and Cable, visit:
http://www.broadcastingcable.com/article/CA478389.html?display=Breaking+News&referral=SUPP

Broadcasters Submit DTV Plan, Cable Cries Foul

Saying they are committed to serving the needs of TV viewers and ensuring a smooth switch to digital television, broadcaster interests recently submitted to the Federal Communications Commission their version of a digital TV transition plan.

The proposal sent to the FCC late last week, from the National Association of Broadcasters and the Association for Maximum Service Television, emphasized the need to keep over-the-air broadcasting viable for the delivery of critical local news and information, and the groups pointed to the billions of dollars already spent by stations for the switch to digital TV. The plan also addressed multicast carriage issues.

The groups suggested in their plan that cable systems carrying a broadcaster's digital signal - whether under a must carry requirement or a retransmission consent arrangement - must not be permitted to strip out or degrade that digital signal. And the groups said that just because consumers subscribe to a pay service they should not be denied additional free over-the-air programming that digital broadcasting offers, an item referring to multicast content that may come from a broadcaster.

Also, an anti-degradation principle that is part of analog carriage rules should be adapted and preserved in the digital environment, the groups said. And the FCC should implement the same anti-degradation principles for satellite TV, they added.

The broadcaster groups also said cable systems should be subject to "transitional carriage rules." With this proposal, cable systems could be required to transmit a broadcaster's full digital signal or provide for down conversion in subscriber homes with analog sets, the groups said.

In response, Robert Sachs, president of the National Cable and Telecommunications Association, said the broadcast industry proposal "is simply a recycled version of broadcasters' previous demands that cable operators be required by the commission to carry half a dozen or more video channels per broadcast station rather than let multicast carriage be determined by market competition with other program networks."

Sachs said the FCC has held that that the Communications Act only entitles broadcast stations to must carry of a single digital video channel, and the latest FCC filing from broadcasters offers no new legal justification for the commission to reverse that position.

"The broadcast industry's submission does nothing to advance the digital TV transition or promote a serious discussion about how to complete the transition," Sachs said. "Meanwhile, cable operators are voluntarily carrying the digital signals of more than 450 stations that offer HDTV and other compelling digital content. It's unfortunate that a majority of broadcasters have yet to offer any high definition programming."

From: Craig Birkmaier craig@pcube.com

Broadcasters Offer Own Ferree TV Plan

By John Eggerton – Broadcasting & Cable

Broadcasters sent a letter to the Federal Communications Commission spelling out what version of its proposed digital-transition plan (the so-called Ferree plan) would pass muster with the industry.

Tops on their list of any plan for ending the transition and reclaiming analog spectrum is full digital cable carriage of all free services provided by broadcasters, including any free digital multicast channels.

The Ferree plan proposes to speed the transition by allowing cable digital signals converted to analog to count toward the 85% digital market-penetration threshold Congress has set for return of analog.

That means that rather than having to wait until 85% of TV households have at least one digital set before it reclaims analog spectrum for auction--which some predict could be a decade or more away--the government could reclaim it in half the time or less by defining that 85% as including TV households that receive a cable digital signal converted to analog, even though they would not be benefiting from the new higher-resolution, greater functionality service.

NAB and major broadcast groups argue that any cable conversion of digital broadcast signals to analog should occur at the home, not the cable head-end (the Ferree plan would allow downcoversion at the head-end).

Finally, the FCC should not authorize unlicensed devices in digital white spaces, and should make sure to allocate enough spectrum for broadcast tools such as wireless microphones and hand-held DTV cameras.

How does the cable industry feel about full digital carriage? No surprise there either, but in response to the broadcaster's pitch, the National Cable & Telecommunications Association said in its own epistle: "The latest FCC filing by the broadcast industry is simply a recycled version of broadcasters' previous demands that cable operators be required by the Commission to carry half a dozen or more video channels per broadcast station rather than let multicast carriage be determined by market competition with other program networks."

In case we missed the point, NCTA concluded: "The broadcast industry's submission does nothing to advance the digital TV transition or promote a serious discussion about how to complete the transition.

APTS and DHS to Announce National Capital Region Pilot Project for a Digital Emergency Alert and Warning System

The Association of Public Television Stations and DHS to Announce National Capital Region Pilot Project for a Digital Emergency Alert and Warning System

John Lawson, President and CEO of the Association of Public Television Stations (APTS) will join Michael D. Brown, Under Secretary of Homeland Security for Emergency Preparedness and Response, in announcing an agreement between APTS and the Department of Homeland Security (DHS). The event will take place as follows:

The agreement between APTS and DHS will create a pilot program for the National Capital Region as proof of performance for the use of public television stations' digital capabilities for a digitally-based alert and warning system. Participants in the pilot

include PBS and public television stations WETA, Maryland Public Television, the New Jersey Network and WHRO. SpectraRep, a professional services firm, will offer technology and management consulting services for the project.

The pilot will demonstrate how public television's Next Generation Interconnection System (NGIS) can play a role with DHS in the national delivery of a Digital Alert and Warning message - and a last mile delivery system to radio, TV, personal computer and other consumer wireless devices. APTS is currently talking with several companies to discuss their interest and determine their level of participation. Wireless and cellular phone companies, cable television operators and other network providers will be encouraged to participate in the pilot project. AT&T Wireless, Cingular Wireless and T-Mobile have already agreed to actively participate in the pilot project.

The best practices developed during the pilot may serve as a common datacasting model for state and local emergency managers around the nation to adopt for local public warning systems. In addition, this pilot will generate information regarding the communications needs of federal, state and local emergency managers how they may use these capabilities to provide emergency messages to safeguard the public.

Five-Minute Warning on Indecency

TV stations are on notice to begin delaying live programs long enough to edit out any possibly indecent footage, communications lawyers said.

In the wake of the FCC's Sept. 22 proposed $550,000 fine against CBS for airing Janet Jackson's breast flash, the commissioners appear to be requiring that stations prepare to cut out any unwanted surprises.

In its decision, the FCC said CBS's five-second delay-long enough to expunge cursing or other inappropriate audio-wasn't enough of a precaution. Although the FCC decided that affiliates not owned by CBS had no chance of predicting Jackson's antics and wouldn't be fined this time, they can't expect similar leniency in the future.

"We urge each licensee to take reasonable precautions in the future, such as employing such delay technology to independently prescreen the network feed to prevent the broadcast of indecent programming over its licensed station," the FCC declared in its order.

"The FCC has clearly told stations they must use video delay as well as audio," says First Amendment lawyer Kathleen Kirby. Producers have told her that delays of five minutes will be necessary to edit video

The Broadband over Power Lines Rules are out

From various sources

General Observations of this Turkey

BPL will be allowed in the 1.705 KHz to 80 MHz band. Equipment is to be certified and sold only to power companies and other BPL broadband service providers (which will mostly be power company affiliates, one would assume)

The FCC's reply to ARRL's objections takes on the appearance of the famous upraised hand salute, with middle finger at attention.

The FCC finds potential interference to public safety users low, (p 24) and does not see any problem of interference to low-band VHF TV.

Look at mitigation procedures on page 28. People with complaints must contact the BPL provider first, as the FCC will just relay complaints to them. If it's a public safety user, there are time limits on resolving the problems; otherwise the utility needs to just be contacted within 24 hours.

Certain aeronautical shortwave frequencies and emergency communications frequencies are excluded from BPL use.

Mitigation will be by notch filters, specs, and are 20db below part 15 limits below 30 MHz, 10db above 30. The procedure for measuring levels of signal is a trip resembling a lawyer's paradise.

The industry is to keep a database of BPL users. The database requirements don't appear to be all that specific.

Cinergy's CEO Jim Rogers was recently on CNBC. He doesn't have a clue on how BPL works and kept mumbling something about transformers. Cinergy is rolling out BPL in the Cincinnati suburb of Hyde Park. Their people are not doing the install; instead it is the equipment manufacturer. Supposedly once the system is up and running the lineman will be trained in service and installation (yea, right!).

This may be blessing in disguise. These folks have been sold a bill of goods by someone; once Cinergy starts spending more on customer service complaints and litigation then they get in from subscribers they will dump this turkey real fast.

In English – the lower court was wrong to buy cell tower owner's argument that FAA regulations precluded the neighbor's common-law suit based on nuisance & summarily dismiss action.

So, as it applies here, utility companies using BPL can't argue that their system meets Federal Part 15 regulations and therefore only the FCC can regulate their system, not the local Ohio court. A licensed radio user can bring an action based on the common law action for nuisance (E.G., the BPL signal interferes with his quiet enjoyment of the 20 meter band.)

BPL, Interference, and You

From: Steve Blodgett

In this new, Oligarchic America of ours, corporate manipulation has become embarrassingly bold and operates without impunity.

When discussions about BPL interference first arose I predicted to acquaintances that BPL technology was going to be imposed upon us regardless of interference across the HF spectrum and above. You see, the movement of government and business has become all too predictable. And, never doubt, in America they are all but the same thing, operating in a kind of self-serving concert. That understood, I believed that BPL was a certainty, and that the discussions, tests, protests, and communications with Washington that were to occur would be for show only, merely procedural events for public consumption, sham demonstrations of democracy, not unlike the activities of the Judiciary Committee during the impeachment attempt of the former President.

For those of us who are ham operators or who look for worldwide public opinion via shortwave radio broadcasts. The enthusiasm and political power of Chairman Powell and others is problematic. They brought the BPL hammer down, and will effectively cut us off from "free" connectivity to the rest of the world. If you don't think so just wait until you see the interference noise level that will result from BPL across the spectrum! Sure, they tell us that we'll still have connectivity via the new broadband world. But, at what price? We may well find ourselves at the mercy of the major broadband pipeline operators for communications. And, I have to wonder, could a "national emergency" prompt censorship and control of this broadband pipeline? After all, it's being done elsewhere. Why not here?

Now, let's ask ourselves whether or not the Commission will effectively deal with BPL interference as they promise. I don't think so. In recent years we've seen an ongoing and insidious sacrificial rite at the FCC. Protection and quality standards for broadcast signals have been eroded across the board in favor of presumed technological improvements and short-spacing compromises. And of course, our American God, "Cash," plays no small part in what I call - excuse me - "the systematic trashing of the spectrum."

I, for one, will dutifully report interference when it arises, and it will. I have to wonder though, will the power company shut down BPL for me? I think I just heard laughter....

By the way, for a sobering view of your new S-meter noise indication from those BPL'd power lines near you, check out this BPL "Interference Evaluation Tool" at: http://www.vk1od.net/bpl/bplc.php

Another Look at BPL

From: Tom Bosscher tom@bosscher.org

In several towns, the power companies have already dropped BPL. Those who live in the rural areas will be waiting forever for Internet access to come via BPL. Do not kid yourself, BPL is not a regulated industry, and the power companies do not have to provide it where they see no return on investment. Just like the cable companies, if there are not enough homes every mile, it ain't gonna happen.

In the next five years, there will be towns that will have the interference, but, five years from now, BPL will be a memory. WIFI, DSL and other technologies are cheaper, and that is what matters.

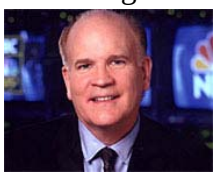
For WORD see:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-245A1.doc

For PDF see:
http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-245A1.pdf

Wright Issues Call to Copyright Action

(Or – Here we go again)

From various sources



Bob Wright of NBC to the looooong list of entrenched media moguls >who want their friends in Congress to protect their dying business model. Today Wright called on Congress to help the media moguls in their fight for copyright protection, saying that the Copyright Clause (of the Constitution) is under "enormous pressure and requires our vigilant attention."

The question is, where is the enormous pressure coming from?

The big media conglomerates have been behind the gutting of the intent of the Copyright clause of the constitution, with 11 changes in the past century alone. Talk about the pot calling the kettle black...

The entertainment "biz" wants to do for the Federal Government, what it has already done for Los Angeles -- create a haven for the "biz", but destroying all other commercial enterprises in the process. In the 1980's, the biz succeeded in driving out nearly every other type of enterprise from the city of Los Angeles, and yet, after all of the tax breaks,

etc., the biz is still moving more and more of its own jobs outside LA, and outside the US. (Note: Most economic growth in Southern California is in Orange, Ventura & San Bernardino counties, not in Los Angeles County.)

If the biz has its way, copyright-protected jobs will comprise 100% of the US economy, but in order to achieve this, they will have moved nine times as many jobs out of the country. They support Kerry and moan about all the other industries outsourcing jobs, but in fact, the biz is among the worst offenders in the outsourcing racket. Ask any musician in LA -- nearly all orchestral recording is done in England and other non-US locations. Ask any animator -- the jobs have moved to New Zealand. These guys have no scruples and no shame. No one should listen to them.

While in Washington to accept a First Amendment award from the Media Institute, Wright, the dean of network chiefs, sent a message to legislators, regulators and whoever else was listening that his company is ready to lead the fight for copyright protection, saying the Copyright Clause is under "enormous pressure and requires our vigilant attention."

Pointing to a recording industry "decimated by illegal downloads," he said unrestricted digital copying threatened a $1.25 trillion business--television, movies, publishing and software--"whose capital is composed almost entirely of intellectual property," as well as the sectors that support those industries or depend on them.

Together, they comprise 12% of the nation's GNP and 11 million jobs, he said. "I don't think the government gets it," he said. But Wright wasn't done tallying up the cost.

"Add in the intellectual property components of other commercial activity [the kinds his parent, GE, is involved in]...say, pharmaceuticals, engineering, semiconductors, micro-technologies, and it’s entirely likely that more than 20% of our national economy could be traced to intellectual property of some sort. This is a very big piece of the national pie to have at risk."

Wright also said it was a "terrible mistake" to assume that intellectual property violations were a price or the necessary byproduct of the transition to digital.

Wright said that technology, not legislation, is the best solution to intellectual property theft, but he also said that government needed to create "new rules of the road for the digital world...that encourage technological progress yet at the same time uphold the values that make commerce possible."

His suggestions:

1. Support a house Judiciary Committee package of ant piracy bills "currently in limbo".

2. Find some compromise in the Senate Judiciary Committee on the so-called induce legislation targeted at peer-to-peer file sharing.

3. Support Attorney General John Ashcroft's proposed intellectual property protection recommendations.

On the Other side of the Coin

With in days, if not hours, the Consumer Electronics Association issues a press release entitled “Home Recording Devices Helping to Capture Important Moments.” It would appear that they are on a completely different page than the NBC and other folks in Hollywood worried about who is copying their precious material.

They say: “Halloween and November television sweeps signal a time when millions of consumers capture and save their favorite costumed moments and TV shows on home recording devices such as camcorders and Digital Video Recorders (DVRs).” The Consumer Electronics Association (CEA), recently released a factory-to-dealer sales figures for these devices, saying the demand for digital home recording technology is growing.

According to CEA Market Research, digital camcorder unit sales have risen 12 percent compared to 2003, totaling 2.6 million units through September. Sales reached 2.3 million units during the same period last year. Total camcorder sales, which include standard analog and digital camcorders, have fallen by 8 percent to 3.6 million units - a trend CEA attributes to a transitionary period between the analog and digital alternatives.

DVRs and DVD recorders have experienced even more impressive growth as consumers begin to understand the time-shifting benefits of DVR technology and the advantages of digital home recording. Unit sales of DVRs are up an amazing 304 percent compared to the same time period of January through September of 2003, surpassing one million units for the first time ever. Dollar sales in 2004 have already surpassed $345 million, an increase of 233 percent compared to sales in 2003.

"With more and more options coming available to the consumer at a range of price points, we expect to see great things in this category in the future," said CEA Director of Industry Analysis Sean Wargo. "DVRs and camcorders will continue to boast impressive sales."

DVD recorders have also experienced growth, with sales reaching 463,000 units, an increase of 44 percent compared to 2003. Additionally, sales of recordable DVDs have risen to 324 million units, representing 569 percent growth year-over-year. Recordable CD unit sales remain strong at 1.9 billion annually.

Meanwhile, sales figures for analog recording media and technologies are beginning to demonstrate the impact digital technology is making on America's CE purchases. VHS

tape sales are down 20 percent to 161 million units compared to 2003, and audio cassette tapes are down 13 percent to 97 million units.

A Possible Approach to Copyright Protection

TM Systems appears to be standing in the wings, along with other companies hoping to ride the copyright horse, by providing technology and equipment that will foil the would be violator or the ever precious copyright.

They say: "With the proliferation of pirated films and television programs once again at the forefront of industry discussion, TM SYSTEMS language localization technology continues to do away with many Internet piracy concerns via its unique encryption and distinct watermarking technology.

TM SYSTEMS claims to have the only fully integrated, "end to end" digital language localization solution in existence. These kinds of technology, in the area of piracy, continue to catch the eye of television networks, studios and distributors.

The technology works to and from any language and with any character set. Video and videotape is done away with; all files are digitized and sent via the Internet with secured and customized encryption methods; time codes are automatically inserted, as are character names, assuring matched language versions, whether dubbed or subtitled; assets are easily stored for shared or future usage and much more. And most importantly, with regard to the issue of pirated material, all TM files are traceable. In addition, every single frame of the TM transferred product is encrypted, making every hacker's job virtually impossible.

TM SYSTEMS software works only on TM-licensed "modules" that are activated only with a specially programmed "key" or dongle.

Today, the MPAA released a statement whereas it "has yet to reduce online piracy". Its focus, per the report, "is on people sharing a large number of movies on line." With the TM technology, codes can be issued for each user, so that no sharing occurs.

FCC broadcast database compromised

From Tim Hershiser thershiser@klsrvox.com
Chief Engineer KLSR-TV, Eugene, OR

Recently a gentleman at Pacific Television Center called to warn me that several bogus applications for station modifications appeared in the FCC Media Bureau's Consolidated Database System (CDBS) late last week. One of the applications increased the ERP of a KABC-DT CP from 182 kW to

1,000 kW. Another dropped the height of KABC analog from 1,877 m AMSL to 1,785 m AMSL and increased power.

At least one of the bogus applications had a forged certification with my name on it. It appeared whoever filed these applications copied legal and engineering certification data from other applications, as the forgeries matched the names of the consulting or corporate engineers who had signed previous applications for the licensee.

The applications do not appear on the station's CDBS account page, as they were all filed under FCC Registration Number (FRN) 0011372539, which the FCC Registration Search Page https://svartifoss2.fcc.gov/servlet/coresweb.servlet.user.search.SrchHomeServlet shows belongs to Ronald A. Molina. The FRN was registered Aug. 11, 2004.

Searching through my Oct. 24, 2004 version of the CDBS TV engineering database spreadsheet (available at http://www.xmtr.com/fcc/tvdb.zip), it appears the first filings were for KABC, with the changes mentioned above as well as an application for an auxiliary DTV CP at 1,000 kW. These applications carry a file date of Oct. 18. The following day, another apparently bogus application appeared for modification of the analog facilities of KTLA-TV. Oct. 20, applications were filed for KGTV, KFMB-TV, KTTV, KCET, KCBS-TV, KNBC and KWHY-TV. The last applications show up Friday and affect KWHY-TV, KCAL-TV, and KUSI-TV. So far, the bogus applications I've discovered carry application ID numbers between 1020374 and 1021811 and application ARNs from 20041018ABS through 20041021AFN.

What I found interesting is the hacker appears to have done a reasonable job picking many of the antenna patterns, orientation and beam-tilt, although some of the choices are a little strange. The KNBC-DT and KABC-DT CP applications both specify a high-gain Dielectric TFU-36DSC-R C170 antenna with 0.75 degrees electrical beam-tilt and 2.75 degrees mechanical beam-tilt, and a KWHY-TV auxiliary DTV application specifies an Andrew antenna with a Dielectric model number. However, no exhibits with antenna patterns were attached to the applications, as required by FCC rules Sec. 73.625.

Bob Gonsett, a broadcast consulting engineer and president of Communications General Corp., has been working on this issue and advised anyone with information on the fraudulent applications to e-mail rbonacci@fcc.gov. He also found some bogus applications affecting southern California radio stations.

Sinclair Fallout Could Linger

From: Craig Birkmaier craig@pcube.com

Experts say flap over film may spur new regulations on ownership of stations; Firm could see 'turbulence'; Broadcast licenses safe; new ones likely to come under added scrutiny.

According to Andrea K. Walker of the Baltimore Sun, Its controversial program about political documentaries is behind it, but the political ramifications for Sinclair Broadcast Group Inc. likely aren't over.

Sinclair, one of the largest independent owners of television stations, found itself the latest media company in controversy's glare when its plans to air an anti-John Kerry documentary drew fierce opposition from Democrats in Washington, advertisers and, in turn, shareholders.

Shares of the Hunt Valley company fell nearly 17 percent, then mostly recovered after it announced it would not air all of the documentary critical of Kerry's actions some 30 years ago after he returned from combat in Vietnam.

Historically, the Federal Communications Commission has revoked or denied renewal of broadcast licenses for negligence, but not for arguments over political speech that are protected by the First Amendment -- making it unlikely Sinclair would lose any of its licenses. But Sinclair could be affected in other ways. Media analysts said the flap could lead regulators to re-examine rules that govern how many stations a company can own in one market and that deal with the political content of newscasts.

And depending on the outcome of next week's election, and its effect on the control of the FCC, which regulates the public airwaves, Sinclair might not get the rubber stamp that television outlets routinely receive when renewing broadcast licenses.

"I wouldn't bet on anybody losing their license unless the FCC receives a sudden spine transplant, but Sinclair could unquestionably see some turbulence," said Andrew Jay Schwartzman, president and chief executive officer of the Media Access Project, a public interest group.

The issue flared Oct. 9 after the Los Angeles Times reported that Sinclair instructed its stations to pre-empt regular programming to air a news program based on Stolen Honor: Wounds that Never Heal. The documentary included allegations from former prisoners of war that Kerry's anti-war testimony before Congress in 1971 caused further torture to soldiers held captive in Vietnam.

A plummeting stock, threats of lawsuits by shareholders and a backlash from its advertisers prompted Sinclair to switch gears and air a show Friday on political documentaries in general. Sinclair also shrunk the number of stations to air the show to 40 from 60. The company's stock closed up 4 cents to $7.17 on Friday.

Although the company declined to comment last week, it released a statement Friday evening that it was "gratified" by an opinion piece in The New York Times and a Wall Street Journal editorial in support of airing the documentary.

Reed Hundt, who led the FCC from 1993 to 1997 under President Bill Clinton, said that Sinclair has jeopardized a longstanding relationship the federal government had with broadcasters that they would gain free access to the public airwaves -- worth billions of dollars if sold -- in exchange for fair and responsible coverage.

"Since it's one universal medium, they've been given very special privileges to sustain that universality," Hundt said. "If broadcasters start to behave to the degree the way Sinclair is uniquely behaving, the whole industry will find that they'll be on the short end of the political stick."

Political targets

Media companies have been political targets before. President Richard M. Nixon pursued the licenses of television stations that he perceived as foes, including those owned by the Washington Post Co. In 1973, Republicans challenged the licenses of two Florida stations owned by the company. But the Republican chairman of the FCC at the time, Dean Burch, did not keep the stations from getting their licenses renewed.

"Nixon would obsessively monitor media coverage of his administration," said Philip Napoli, an associate professor at Fordham University in New York and director of the Donald McGannon Communications Research Center. "If he didn't like the way they were covering them, he directed the FCC to put a lot of pressure on them."

Last year, Cumulus Media Inc. drew criticism for ordering its radio stations not to play songs by the Dixie Chicks after the lead singer of the popular country music group said during a concert in London that she was ashamed that President Bush was from her home state of Texas.

Sen. John McCain, an Arizona Republican, said in a Senate hearing that Cumulus was threatening to erode the First Amendment by censoring political views the company didn't agree with and said it exemplified the problem of media power consolidated in a few hands.

Until 1987, broadcasters were regulated by a "fairness doctrine." It required television stations to make the best attempt to include contrasting views on issues of public importance. But the FCC and courts repealed the doctrine, arguing that it interfered with free speech rights. Some journalists also argued the stricture was a burden and discouraged them from covering controversial issues.

Some experts contend that the elimination of the doctrine enabled the rise of partisan news programs, including the creation of conservatively voiced Fox News.

In denouncing Sinclair, the Kerry camp said that the company had an obligation to allow Kerry to give his view under an FCC rule that requires a broadcaster lending its facilities

to support one candidate to provide "quasi-equal opportunities" for backers of the opposing cause. Sinclair invited Kerry to participate in the special, but he declined.

Revoking licenses rare

Any viewer theoretically can challenge Sinclair's licenses, which come up for renewal every eight years at various times, state by state.

The FCC has revoked licenses several times for reasons other than content complaints. In 1988, RKO agreed to sell KHJ-TV Channel 9 in Los Angeles and 13 other television and radio stations to Walt Disney Co. in a $324 million settlement after the FCC revoked RKO's licenses for filing false financial statements, dishonesty with advertisers and improper campaign contributions.

In 1989, radio station owner Henry Serafin lost WBUZ, a Fredonia, N.Y., AM radio station, after local residents complained that he discriminated in hiring and ran contests without awarding prizes.

"I think it would be a very difficult case to make that Sinclair's airing of the program is so egregious and unfair that it should warrant loss of a license to run a television station," said John G. Johnson Jr., a partner in the media practice of Paul, Hastings, Janofsky & Walker LLP in Washington.

Ultimately, Sinclair also has shareholders, advertisers and viewers to answer to -- parties whose grievances last week triggered a quick response.

"In public relations, there are many people you have to answer to," said Roger Caplan, owner of the Caplan Group, an Ellicott City advertising and marketing firm. "They underestimated that their stockholders and advertisers would not be pleased and their viewership would not be upset."

(**Editor's Note**: Anyone wanting to see the full, uncut version of the documentary: Stolen Honor: Wounds that Never Heal may do so By clicking on the logo.

New SMPTE Fellows What is a SMPTE Fellow?

By: Jim Mendrala

"A Fellow of the Society is one who has by proficiency and contributions attained an outstanding rank among engineers or executives in the motion picture, television, or related industries."

At the SMPTE Technical Conference and Exhibition Fellows Luncheon in Pasadena, CA on Saturday October 23, 2004 a total of 16 Fellowships where awarded. Some of the Fellows I happen to know personally. These I will give you a brief description of some of their qualifications.

The first person on my list is John D. Silva. John has been on a self directed and extended sabbatical leave since 1999. Earlier John developed the first Telecopter for KTLA-TV. That was the first helicopter to provide live pictures to the studio for transmission over the air from Mt. Wilson in the Los Angeles area. Since 1999, he has been studying various aspects of digital technology, including digital cinema, DTV Production and post-production systems; news acquisition systems and development; video compression, encoding, decoding, statistical multiplexing, format translations, and digital systems design. Prior to his sabbatical, John worked at Hoffman Video Systems as a senior account executive and systems design consultant.

John has received an Emmy in 1970 for "outstanding achievement in newsgathering"; and for "concept, design, and expertise of the KTLA-TV Telecopter" in 1974.

John has spent the last four years as an active participant on SMPTE Digital Cinema standards committees.

The next person on my list is Philip Livingston. I first met Phil back in 1987 when I was working at NBC-TV. Phil, during his 25 year tenure at Panasonic, has held numerous technical positions and has moved up the corporate ladder and is now vice president of technical liaison for Panasonic Broadcast and Television Systems Co.

Phil chaired the SMPTE Committee on Television Production (P-18) for the past two years, and also represents Panasonic on the board of WHD-TV, the digital model station in Washington, DC.

Phil has also been involved in work of the advanced television Systems Committee (ATSC) Inc. since 1987. Phil is currently serving his second term on the ATSC Board of Directors and was recently re-elected to a third term as chairman.

Phil has written many white papers and articles and has given numerous presentations on television systems and emerging DTV technologies.

The next person on my list is Wendy Aylsworth. I first met her while attending a preliminary ITU meeting held at Warner Bros.

Wendy is vice-president of technology for Warner Bros. Technical Operations, over seeing the establishment of new technologies for the company's production divisions and assessing the impact of emerging technologies on product distribution.

Wendy is chairman of the Technical Committee on Digital Cinema for SMPTE, where she coordinates the efforts of over 200 international individuals in establishing the first set of over 30 interoperability specifications on digital cinema; from the format of master elements, through distribution of the content, as well as exhibition routing and display.

As a side note Wendy also acts as vice-chair for the Radio communications Broadcasting Multimedia Working Party in the International Telecommunications Union in Geneva, Switzerland.

Next on my list is Charles S. Swartz. I first met him at the University of Southern California (USC) when he was an education specialist and program manager at UCLA Extension's Department of Entertainment Studies and Performing Arts.

Charles is now executive director and CEO of the Entertainment Technology Center (ETC) at the University of Southern California (ETC-USC) where he oversees efforts to understand the impact of new technology on the digital cinema and entertainment industry.

Charles is a member of the Lou Wolfe Memorial Scholarship Committee and also serves as Governor of SMPTE's Hollywood Section and Co-chair of the Section's Education Committee.

Next on my list is Thomas Scott. Mr. Scott is co-founder, vice president of engineering and chief technology officer of Entertainment Digital Network. I first met him at the SMPTE meetings held at Disney Studios back in the 80's.

Since his work on the motion picture Apocalypse Now in 1978 Tom has received two Academy Awards for best sound on "The Right Stuff and "Amadeus".

Tom is active in many professional organizations and standards committees including digital cinema. Tom is currently the SMPTE Engineering Director, Motion Pictures.

The next person on my list is Frederick Van Roessel. I first met Fred when SMPTE was working on High Definition back in the 80's. At that time he was working for Philips Research Laboratories in the Netherlands. When he came to the U.S. he stayed with Philips where he was responsible for broadcast color camera development. Later he developed the software and hardware for fully automatic camera adjustments.

Fred has participated in ATSC Committees and the HDTV Advisory Panel Working Groups. Fred has worked on the SMPTE Colorimeitry Committee and chaired the Digital Cinema Colorimeitry Committee which developed the X, Y, Z color system to handle all colors in the spectrum locus (Beyond the limitations of R,G,B).

The last two people on my list are David Wiswell and Richard Mizer.

Dave is group manager for advanced television products at Panasonic Broadcast & Television Co. and is responsible for Panasonic DLP projection systems and high-definition cameras for studio and field use.

Richard is Co-founder and chief technology officer of CINEvents, Inc. I first met Richard at the SMPTE DVD Authoring Committee. Richard managed the Technology Test of component digital video live interactive edit, which aided Steven Speilburg while filming "Jurrasic Park" in Poland. This successful test is recognized by the motion picture industry as a major change in the way movies are made.

Others that received a Fellow Award but I don't know personally, are Robert Plummer, Marty Ollstein, Charles Dages, David Keighley, James W. Edwards, II, Michael A. Dolan and Preston A. Davis.

Congratulations to all of you. You deserve the Award!

Analog Shutoff Date

From: Jim Pratt jpratt@stny.rr.com

Cable may be there in a matter of months, but the NAB has put up a fight to prevent setting a hard deadline for the return of their member broadcast stations' analog television spectrum to the government.

The current law states that the transition to digital should come in 2006, or once 85 percent of American households have TVs that can receive digital signals.

The FCC and many members of Congress, have been trying to close that 85 percent loophole - though so far unsuccessfully. The battle will surely continue after the election.

Rick Chessen, head of the FCC's digital task force, said the statutes will most likely require an extension beyond 2006. He said the commission would like to see it happen as soon as possible, "but we think 2009 is a more reasonable date to be shooting for."

Many expect a policy change to happen in the next session of Congress. In the meantime, the FCC has adopted an unofficial target date of Jan. 1, 2009, for the transition, reports Knight Ridder Newspapers.

FCC chairman Michael Powell told the Senate Commerce Committee in September that having a deadline of 2009 will add millions more digital sets to the marketplace before analog signals are turned off.

Duct Tape Kept Mississippi Public Radio on the Air

From: Tim Hershiser thershiser@klsrtvfox.com

Public radio listeners, at least those familiar with Garrison Keillor's imaginary American Duct Tape Council, will find humor in the fact the indestructible tape kept Mississippi Public Broadcasting on the air in southern counties during Hurricane Ivan.

When Mississippi was a likely target, MPB officials had to make a decision: Concentrate on the WMAH-19 TV antenna taken off the air two days earlier for repairs or shore up the 90.3 FM radio antenna on the same tower near McHenry.

It was unlikely that the TV antenna could be fixed before the storm so MPB contracted with Coast To Coast, a Texas company, to do a quick fix on the FM antenna. The crew, which pulled out Wednesday as winds picked up, used duct tape, an item touted in Keillor's Saturday national public radio show.

"Wrap around enough duct tape, and it apparently does work," said Keith Martin, MPB's technical services director. "We'd already learned that the tower was improperly installed two years ago, and it was scheduled to be fixed, but not before Ivan."

Like all state agencies, MPB faces a downsized budget this year. Slow infrastructure repair, such as antennas, is one of the results of a $600,000 cut, said Jennifer Griffin, communications director for MPB, which broadcasts statewide from eight radio and TV towers.

The Jackson-based MPB staff kept round-the-clock crews in touch with public officials, announcing people and pet shelters open to storm evacuees across the state and answering phone calls from listeners from New Orleans to Florida. More than 500 listeners called in reports of their areas, road conditions and asked questions.

The TV antenna will not be repaired for several months but soon contractors will begin installing a temporary WMAH-19 antenna expected to have a weaker but working signal sometime next week. At the same time, the crew will properly secure the radio antenna and the duct tape will come off.

Maybe. After all, duct tape removal is no easy task.

http://www.sunherald.com/mld/thesunherald/news/local/9726175.htm?template=contentModules/emailstory.jsp

Triveni Digital Assists Broadcasters Implement FCC Mandated PSIP

Triveni Digital Offers Extra Technical Support to Assist Broadcasters Implement FCC Mandated PSIP

The recent FCC Report and Order (R&O) requires all broadcasters to implement a dynamic PSIP system by February 1, 2005. The R&O adopts the ATSC A/65 PSIP standard in its entirety, with no exceptions. In order to assist broadcasters implement and fully comply with this R&O, Triveni Digital is offering extra technical support.

To answer questions related to PSIP compliance and issues related to operational implementation, Triveni Digital is:

- staffing a telephone help line, 1-866-TRIVENI, (1-866-874-8364)
- providing a dedicated e-mail address, PSIPHELP@TriveniDigital.com,
- and has produced a web resource site, www.TriveniDigital.com/PSIP.

"For years, Triveni Digital has supplied PSIP generation and verification equipment to broadcasters. To insure that broadcast stations can be made PSIP compliant on schedule, our engineering and support teams are ready to answer questions, and assist with the design and installation process," said Mark Simpson, President and CEO of Triveni Digital. "We have the expertise and real-world experience to help implement any sort of PSIP system, from the most basic to the most complex, as well as to minimize compliance related technical challenges."

Currently, over 700 stations are using a Triveni Digital PSIP systems to fulfill their PSIP needs.

PSIP data embedded in a broadcast stream enables v-chip parental controls, closed captioning, channel numbering and other functionality such as digital program insertion. The FCC R&O requires that all mandatory tables and descriptors (including the MGT, TVCT, EITs 0-3 and STT) must be present in the transport. Additionally, the tables should be filled with the correct information. For example, the EITs should have the current scheduling information and the STT must be accurate to within 1 second of GPS time..

TV hardly gets much better than this.

An Oregon man discovered earlier this month that his year-old Toshiba Corporation flat-screen TV was emitting an international distress signal picked up by a satellite, leading a search and rescue operation to his apartment in Corvallis, Oregon, 70 miles south of Portland.

The signal from Chris van Rossmann's TV was routed by satellite to the Air Force Rescue Center at Langley Air Base in Virginia.

On October 2, the 20 year-old college student was visited at his apartment in the small university town by a contingent of local police, civil air patrol and search and rescue personnel.

"They'd never seen signal come that strong from a home appliance," said van Rossmann. "They were quite surprised. I think we all were."

Authorities had expected to find a boat or small plane with a malfunctioning transponder, the usual culprit in such incidents, emitting the 121.5 MHz frequency of the distress signal used internationally.

Van Rossmann said he was told to keep his TV off to avoid paying a $10,000 fine for "willingly broadcasting a false distress signal."

Toshiba contacted Rossmann and offered to provide him with a replacement set for free, he said.

http://www.cnn.com/2004/SHOWBIZ/TV/10/18/odd.television.reut/index.html
http://www.msnbc.msn.com/id/6276846/

Pink slip blizzard

From: Albertv albert@verbrugh.net

The third quarter was not a happy time for a lot of tech companies and workers. Job cuts at technology companies rose 60 percent compared with second-quarter numbers, hitting 54,701 announced cuts, CNET's News.com reported, picking up on a report from job firm *Challenger, Gray & Christmas*. About 56 percent of the cuts hit computer companies -- makers and distributors of computer parts and software.

Adding to this from: Timothy Casey GPEMC 11950@fieldcraft.biz

The IT sector "invasion" may not be as simple as it seems. It is all too easy to forget that the internet is a nation in its own right, because on the internet, Calcutta is just next-door to my little place in Adelaide. If companies shift operations from the country of residence to the internet, as I have, then the web hosting service just around the corner is no longer a local. My Australian customers could come and knock on my door and buy my products directly from me. However the fact remains that the server in California is closer to those Australians who trade on the internet than I am. If those Australians fail to identify their nationality when they buy from me, I cannot collect the goods and services

tax from them. However, some would argue that because the transaction is occurring outside Australia that GST may not apply. Suffice it to say that any government that attempts to extend their jurisdiction into the internet, or for that matter into any region they cannot take complete responsibility for; is creating their own legal nightmare.

The "border protection" point is that a large number of the IT "invaders" are already there to start with and may not be invaders as such.

Generally, entrance of substantial numbers of new players in established and entrenched industries is the product of disruptive technology. Disruptive technology is the radical improvement of the rate at which a product or service can be advanced at the initial expense of the product's functionality. Disruptive technologies start in niche markets and eventually displace established technologies when they overtake the established technologies in terms of features and price. In the case of IT outsourcing, we also observe a decline in the ability of established IT companies to continue to employ people - whereas the newcomers seem to have no trouble in taking on new recruits - What gives? This fits the profile of technological disruption precisely. The threat to existing employees does not actually come from outsourcing, but from the failure of local companies and departments to identify, develop, and exploit the new technology that is now making these changes possible. "Pink slips" in today's IT industry may well be for the best as they are early indicators that established IT employers just don't have what it takes to run a long term business. The opportunity for employees is to do what the managers were incapable of: Identify the niche markets that are the basis of support for innovators, get in at a "ground" or niche market level, and work with the industry as it grows the new technology from the niche market to global markets. ("Ground level" is not cleaning the basement's toilets as such tasks are well established - ground level is taking a new and unestablished task from zip to money-clip)

Long term business does not climb the mountain of continual growth – such fantasies are for the incompetents who are nobs this decade and bankrupt the next. Long term business is about taking an existing technology to global market standards and investing one dollar for every dollar paid in taxes; in research, to be split equally between developing existing products, and developing new technologies for small niche markets on the grounds that such technologies ultimately evolve to the point where they eliminate established products - and someone will develop them regardless of whether or not you choose to be that someone.

The key is to separate technology from products. Products can be developed incrementally (v. 1, v. 2, v. 3, etc.) and to satisfy larger and larger markets. Product development is guided by market research and conventional management practices. Technology or rather "disruptive technology" must always be built from the ground level - starting with the barely profitable tiny niche market and evolving through market guided product advancement into the products that may even replace the established product line. The demand for technology CANNOT be predicted by market research and conventional management practices cannot produce new "disruptive" replacement technology. This is possibly because markets, being made of people, are NOT inanimate

and therefore have a two way relationship with business such that markets can be as influenced by business as business is influenced by markets. Market research only describes one side of the relationship while the other side of the relationship is probably driven perhaps by radical new "disruptive" technology, advertising, or may even take the form of solutions to problems that no-one else wishes to acknowledge - IE "Soda and seltzer are good but Coke is better" is a statement used to influence people to want to try Coke rather than rely on existing demands to tip the market.

As to the cannibalized sales objection: better that your product sales are cannibalized by your own products than by someone-else's - as so many computer companies have learned the hard way!

One thing is for certain, invasions mean larger markets and correspondingly greater opportunities. The trick is to understand that a technology is like a car engine. The opportunity wears out, and it is necessary from time to time to stop your business to refit on new technology BEFORE your technology reaches the end of its life. This involves a substantial time commitment, investment, and cannot be trusted to executives who are more concerned with the status associated of what they do and how they are judged by other executives than the longevity of your business.

If you work for someone-else, make sure they invest in starting new technology from ground level in niche markets to create new product lines. If they don't do this in addition to existing product line development, don't expect to keep your job for very long. In such a case you should use your position to find some-one who does think a little further than this year's budget; get your foot in the door and go work for them instead before the coming of the inevitable pink slip and ruinous financial consequences...

The ideas about "disruptive technology" are from Christensen, C. M., 2000, "The Innovator's Dilemma", ISBN0-06-662069-4, 286pp.
The hair-splitting (technology vs. product) and associated bad attitude is all mine! :^)

Discover the most advanced speed comprehension application at:
www.fieldcraft.biz/shop http://www.fieldcraft.biz/ki.htm

DTV Station Transition

From: Gary Sgrignoli gary.sgrignoli@IEEE.org
DTV Transmission Consultant

Well, the World Series is over, and the an amazing series win by the Boston Red Sox has given Chicago Cubs fans hope that it is possible for our curse to be lifted "next year" !!! And of course, to no one's surprise, more VSB seminars are on the way !!!

The DTV transition continues and there are at least 1315 DTV stations on the air covering 207 markets and about 99.7% of the TV households (88% of the households can receive 5 or more DTV signals). Behind us is the beginning of the FCC tuner mandate, the "plug & play" cable compatibility issue, the "broadcast flag" resolution, and the issuing of the DTV translator rules. Besides that, there is a significant increase in HD programming as well as more models of DTV sets with digital tuners on showroom floors. With the advent of the 2nd periodic review setting the post-transition channel election and replication/maximization process in motion this November, the last phase of the DTV transition has begun !

As you may recall, all-day digital VSB transmission seminars have been offered around the country for the last 6 years, with more planned later this year. Some of the cities across the country that have hosted seminars in the past have been Chicago, Seattle, San Jose, Oakland, Dallas, Baltimore, Salt Lake City, Champaign (IL), Washington DC, Milwaukee, Los Angeles, Columbia, Reno, Des Moines, Denver, Portland, Albuquerque, Atlanta, Orlando, Minneapolis, Philadelphia, Lansing (MI), Topeka, Boston, Pittsburgh, Manchester, New York City, Raleigh Durham, San Diego, Portland ME, and Phoenix. The plan is to visit new cities as well as to revisit some of the ones mentioned above.

Upcoming all-day VSB seminars this fall & winter are scheduled for:

Date: Monday, November 15, 2004
Location: Sheraton Hotel in Indianapolis, IN (IBA Convention)
Time: 8:30 am to 5:30 pm
Host: Indiana Broadcast Association
Sponsors: Harris, LARCAN, MRC, Roscor, & Sencore

Date: Wednesday, March 23, 2005
Location: KQED-TV in San Francisco, CA
Time: 8:30 am to 5:30 pm
Host: SMPTE Bay Area section, SBE Chapter 40
Sponsors: LARCAN, Katrein-Scala, & others (TBD)

In addition to these seminars, plans are underway for seminars in Cincinnati, OH and Birmingham, AL early next year.

As usual, the modest registration fee for these seminars covers an updated 1-1/4" thick detailed seminar notebook as well as lunch. I've attached an announcement flyer for the IBA (Indianapolis) seminar for your reference, which contains contact and general information. If you know of anyone wanting to attend such a seminar (e.g. any local station engineers or business clients in the area), please forward this e-mail to them as well as the attached flyer.

Local TV broadcasters often host these seminars in conjunction with local broadcast organizations such as SBE and SMPTE. They are meant to be "break-even" events for the hosts with the travel, shipping & speaker expenses paid by corporate sponsors ($600

each), while the handout books and refreshments are covered by the modest (often between $40 - $50 per person) registration fees charged to the attendees. The seminars often draw between 30 - 60 people, and one SBE credit is given to SBE member towards re-certification.

If you know of any broadcast-related groups that would want to co-host or co-sponsor any future VSB seminars in their cities, please let me know. The late fall seminar schedule is still currently being planned along with the winter schedule. In addition to the seminars mentioned above, there has also been interest in holding seminars in the Los Angeles and San Antonio areas in the next few months. I believe that these educational seminars are well worth the time and money to attend, especially in this last phase of the DTV transition.

As the DTV transition continues to roll out, let's hope that we see continued great progress throughout the rest of 2004 and into 2005.

So where do we stand? From both the FCC's CDBS DTV Station Status: November 7, 2004:

- Licensed (LIC): 636 (+11)
- Construction Permit:(CP) 725 (-40)
- CP Modification (CP MOD) 405 (+47)
- STA (All variations) 1006 (+4)
- STA (Modifications) 112 (+1)
- Applications (minus rule making) 144 (-48)
- Rule Making - Digital Channel Changes:
- Pending Applications 27 (-1)
- Grants 147 (+1)
- Dismissed 0 (-0-)

From Doug Lung's Report:

The FCC's efforts to process Form 381 applications before the November 5 filing deadline is evident in the changes in the database, with a huge decrease in the number of outstanding applications and a corresponding huge increase in the number of CP modifications granted.

Note: The total will be greater than the number of DTV stations as some stations have licenses, construction permits and applications on file. Some stations also have license, construction permits or applications for backup facilities (auxiliary broadcast). Subtracting the STA Modification number from the number in STA (All variations) will give a more accurate indication of the number of DTV stations operating under STA.

A spreadsheet showing all current DTV entries in the FCC CDBS TV engineering database files may be downloaded from www.xmtr.com/fcc/dtvdb.zip. All CDBS database files used for the spreadsheets carry a date of November 7, 2004. The entire TV engineering database (large file - over 2MB) extracted from the CDBS is available from www.xmtr.com/fcc/tvdb.zip.

PBS and DTV

PBS and its member stations are very excited by the transition to digital television because it is tailor-made for public broadcasting. The three key features of DTV - high definition television (HDTV), multicasting, and data transmission - will present many opportunities for public television to further its mission and to continue bringing high quality, educational programming to the American public. More significantly, DTV opens up a host of additional opportunities that are not possible with analog television. We therefore encourage the American public to rally behind their local public television station's efforts to obtain funding for the transition to digital broadcasting.

Check the list of stations below to see if your local PBS station has already gone digital. If you do not see your local public television station listed, come back soon! This station list will be updated regularly. To find your local station's Web site, check out pbs.org's Station Finder.

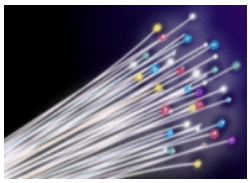
PBS Digital Stations On-Air: As of October 2004, 292 PBS member stations are offering digital broadcast services, covering 92.97% of all U.S. TV households.

Harris Corporation Completes Encoda Systems Acquisition

Harris Corporation recently announced that it has completed the acquisition of Encoda Systems Holdings, Inc. Encoda is a supplier of end-to-end broadcast enterprise software and services solutions including traffic and billing systems, program scheduling, master control play-to-air automation, and digital asset management. Encoda had previously been owned by an investment group that included Thomas H. Lee Partners, Blackstone Capital Partners, Spire Capital Partners, and Evercore Capital Partners, among others.

Additional information about Harris Corporation is available at www.harris.com.

FCC Moves Hurdles for Fiber, a New Competitor



During a recent meeting, the Federal Communications Commission approved several measures concerning broadband development, including action on items dealing with consumer fiber services.

Fiber-based services, which are being rolled out by regional phone companies, will provide advanced communications services to consumers, such as voice, pay-TV services and video and high-speed Internet.

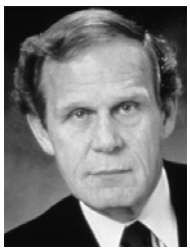
"Deep fiber networks offer consumers a 'triple play' of voice, video and data services and an alternative to cable," said FCC Chairman Michael Powell. "By limiting the unbundling obligations of incumbents when they roll out deep fiber networks to residential consumers, we restore the marketplace incentives of carriers to invest in new networks."

The FCC said its new rules will allow companies to choose between fiber-to-the-home or fiber-to-the-curb networks based on the marketplace. And the rules relieve incumbents from unbundling requirements for fiber-to-the-curb loops when fiber is extended to within 500 feet of a customer's premises.

BellSouth and SureWest Communications brought the issue to the commission.

CEATEC Japan Unveilings

From: Andy Marken andy@markencom.com



So at CEATEC Japan Sony took the weather in stride to introduce the VAIO Type X.

They know what drives the Asian consumer and what will ultimately drive the consumer in the Americas. Think of it. A system that can record six channels – simultaneously. This is the AV recording server that will have home theater owners drooling. It has an unbelievable 1 TB hard disk. Translate that? It's 2 years of nonstop music, one month of DVD movie play or for the techie 1,000,000,000,000 bytes.

It also includes a TV time machine function that lets you watch programs while they are being recorded (technically we call it time shifting but time machine is so cool!). Use your remote control to go back in time, rearrange programs by genre and enter key words to find specific programs.

It's being snapped up in Japan and the company will probably roll it out over here mid next year (2005). It won't be cheap but with that much power couch potatoes can easily justify the investment just to get every football and baseball game that is being played anytime, anywhere.

People in the industry think of CeBIT in Germany each spring and CES right after the first of the year in Las Vegas. However, CEATEC Japan is where the Japanese (as well as Korean and Taiwanese) engineers go to show off what they have done to all of their peers.

Screens Dominate

LCD and plasma TVs and displays seemed to dominate the excitement but then it is a lot easier to show and see great video than great chips. Sharp took the opportunity to show their huge 65-inch LCD TV got a lot of attention at the show. Everyone came to see the largest screen and the color brilliance.

There were screens and types for every taste and nearly every pocketbook.

But the real action all started with the new family of 0402 chips (0.4mm x 0.2mm) are something smaller than a grain of sand and will pave the way for new, bold and fun products. Then you add new networking technologies and out-of-body mobile device experiences. There were tons of leading edge business technologies unveiled but those that catch the eye and heart of people are the consumer and AV technologies.

One of the reasons the Pacific Basin countries have taken PCs and technology into every part of their homes and lives is that with the exception of big-iron mainframes, they don't distinguish between consumer and IT products. Instead these are products for individuals.

The network that is good enough, robust enough and easy enough to use in the harsh environment of the home should be able to withstand the rigors of the office. If your entertainment devices can exchange content (data) without a hiccup with wires or wirelessly then you and your boss should be able to communicate whether you're in the office or on the road. If you can transfer precious family images and memories between your camera/camcorder to DVD and your TV then you should be able to send production schedules and inventory control information to the factory floor, warehouse and accounting.

Naive isn't it? If the kids can't break it they think mature, responsible and reasonably intelligent adults should be in a position to be profitably productive with the tools.

Design, Delivery Flexibility

Since Japan finds it as difficult as the US to compete on the basis of price once products become mainstream, they have perfected the ability to plan and develop products with abbreviated ramp-up production cycles and then shift volume production offshore (China, Thailand, Vietnam).

The new products are typical of what we'll see on a global basis for successful firms that produce small-lot production for made-to-order and targeted markets of enthusiasts. As the products become popular they rapidly ramp up manufacturing to capture marketshare. As demand gains momentum manufacturing is shifted to low-cost centers. If demand slows they turn the production spigot off and move to the next generation of product with little or no remorse.

This year the show was dominated by the complete array of products designed for mobility – in the home, on the road, in the office. They made it a point to show and emphasize products you could use without wading through a user's manual. The screens, displays and TV sets are easy to view and when web site designers figure out that they are designing for readership/viewership rather than their own egos the stuff we see on our screens will be easy to understand without squinting.

Every company today struggles with challenges and roadblocks that are thrown up "for the good of the consumer." There are issues on whose standard is better (who gets the most royalties) and what standards groups will dictate direction. At the same time, content protection alliances work to maintain control over what you buy and use. Despite this, the manufacturers – around the globe – are working very hard to develop what can be called "work-arounds" so the products can be quickly, easily and economically integrated. People now understand and demand that products – AV, IT, home, Mobile and office – must be seamlessly and reliably connected.

Range of Options, Always Connected

Nearly all of the firms exhibiting at CEATEC – large and small – showed end-to-end solutions. But the big difference between these solutions and the Microsoft (and friends) approach is that you didn't have to go with a single source. The Type X server connected and worked with the giant Sharp screen that worked with the LG or Samsung DVD Recorder that worked with the Panasonic cameras and camcorders that worked with the… You get the idea.

Just as with some of the newest solutions being shown here today they were based on the UPnP and UPnP AV standards that ensured fast, easy connectivity and interchangeability.

Several of the wireless home entertainment solutions even showed how people could bring their older analog content forward by including ADS Tech's DVD Xpress and InstantMusic products. DVD Xpress is a set-it-and-forget-it VHS to DVD solution. The new InstantMusic is an iPod colored box that lets you copy (and clean up) your old vinyl music and store it on CD or your MP3 player to enjoy.

Connectivity and interchangeability is going to be a fundamental design criterion for everyone in the years ahead.

Digital Paves the Way

All of the companies, solutions and products displayed at this year's CEATEC Japan focused on digital technology that had its humble beginning in 1982 with the introduction of the CD. Over the past 20 years digital has permeated every facet of our business, home and personal life.

Visually and audibly it is clearer than analog. More data can be sent so the quality can be further improved. Dimension can be added. Digital technology – very evident at CEATEC Japan – has clearly taken over business activities and home/personal entertainment.

While HDTV is slowly and painfully gaining a foothold here in the Americas, you can't sell anything but in the Pacific Basin countries and increasingly in Europe. Before it is assimilated here and probably just about the time Blu DVD technology takes a hold we got a peek at what the future has to hold.

It's called SHDTV – we hate it when acronyms aren't easy to remember/say – or super-high-definition TV. Think of a screen image that has 16x more data than HDTV. In the demonstration you suddenly understand what immersion video means! But don't worry it is still a ways off.

Introducing the Closed Approach

Showing that the third time is a charm, HP joined the stage with Microsoft to rekindle the idea that digital entertainment was really what people wanted in their living room. But unlike the growing number of CE manufacturers who are ready to rollout digital entertainment products at CES, they had a vague reminiscence of something we use in our home office…oh yes a PC.

The media center "solutions" were billed as your answer to accessing your music, your movies, your home videos and your photos on a single device (PC) with a remote control. Of course they weren't as elegant as Apple's new iMac (admittedly another closed solution) or as elegant/powerful as Sony's Type X.

But they do leverage HP's rich heritage in the PC and digital photo markets. In addition they leverage MS's new Media Center software which has enough of the Windows XP look and feel for some of you to find the solution comforting. However, it hasn't attracted the nearly 50% of the households in the country who don't have a PC at home and want an overwhelming reason to bring one home…at any price.

As IDC noted, of the more than 177 million PCs shipped this year only about 550,000 were media center PCs.

However, perhaps a digital entertainment system that touts a 1TB storage space might make us change from the office-based wireless solution we now have to something that sits atop (or perhaps behind) our HD set.

…We'll see

Benedict Elected To Second Term

The annual election for national officers and directors of the Society of Broadcast Engineers was conducted with approximately 1,000 ballots received from voting members. Ballot tabulation was conducted by volunteer members of Chapter 25 in Indianapolis.

Elected to a second one-year term as President was Raymond C. Benedict, CPBE, and Director of Spectrum Management for Viacom in Washington, D.C. In additional to President, Benedict has previously served SBE at the national level as vice-president, secretary and four terms on the Board as a director.

Christopher H. Scherer, CSRE, CBNT, was elected to his first term as Vice President. Scherer is editor of Radio magazine of Overland Park, Kan. And is currently chairman of the SBE National Certification Committee.

Elected to a second term as Secretary was Ralph R. Hogan, CPBE, CBNT, Asst. General Manager, Engineering Services at Washington State University in Pullman, Wash. Hogan also serves as a member of the SBE Certification Committee at the national level.

Robert "R.J." Russell, CSTE, CBNT was elected to a second term as Treasurer. He is chairman of Chapter 138, "Lower Colorado River Valley," based in Yuma, Ariz. and previously served as a national director.

Troy Pennington, CPBE, CBNT, as Immediate Past President, will continue as a member of the Board of Directors. Pennington is Regional Engineering Director for Cumulus Broadcasting in Nashville, Tenn.

In addition to the four officers and immediate past president, 12 other members comprise the Board of Directors. Six of those seats are contested each year. This year, 13 candidates competed for those six seats. Elected to a two-year term on the Board of Directors were:

- James T. Bernier Jr., CPBE, CBNT, Director, Maintenance, Design & Engineering, Turner Entertainment Networks, Atlanta, GA.,
- Keith M. Kintner, CPBE, CBNT, Radio-TV-Film Engineer, University of Wisconsin Oshkosh, Oshkosh, Wis.
- Vincent A. Lopez, CEV, CBNT, Systems Technician, WSYT/WNYS TV, Syracuse, N.Y.,

- Thomas R. Ray III, CPBE, Corporate Director of Engineering, Buckley Broadcasting/WOR Radio, New York, N.Y,
- Barry Thomas, CPBE, CBNT, Vice President of Engineering, Westwood One, Inc., New York, N.Y,
- Larry J. Wilkins, CPBE, CBNT, Assistant Director of Engineering, Cumulus Broadcasting, Montgomery, Ala.

Installation of officers and directors was held at the SBE Annual Membership Meeting, October 27 in Marlborough, Mass., as part of the 2004 SBE National Meeting.

HDTV Over Wireless LAN Demo at IEEE 54TH Annual Broadcast Symposium

The IEEE Broadcast Technology Society (BTS) today announced that a demonstration of HDTV transmission over a wireless LAN will be conducted at the upcoming 54th Annual IEEE Broadcast Symposium. The Symposium advance program (with abstracts and links to registration) is on the Internet at http://www.ieee.org/btsymposium.

Recent advances in PC graphic processors and CPU processing power allow real-time decoding and display of HDTV and the associated audio signal on a laptop computer. This technology, combined with the latest capabilities of broadband wireless ("Wi-Fi"), can be used to support HDTV local distribution and will be the subject of the opening session at the Symposium. Entitled "Video and Audio Distribution via Wireless Broadband," the session concludes with the HDTV transmission demo to be conducted by the Communications Research Center Canada. Also planned is real-time streaming of the session presentation viewgraphs and audio at HDTV quality, distributed over wireless LAN to the audiences.

Broadcasting remains a dynamic, constantly evolving technology as it enters the new millennium, particularly in light of the sweeping changes brought about by digital transmission for radio and television broadcasting. Members of the IEEE Broadcast Technology Society (BTS) are providing the technologies to deliver information and entertainment over the air, cable, satellite, and Internet to audiences worldwide, at home and on the go. The Society fulfills its mission to present the latest technical developments in radio and television broadcast transmission engineering through its annual Symposium and its publications, including the quarterly IEEE Transactions on Broadcasting. The BTS consists of over two thousand members worldwide with chapters located in New York and Philadelphia; Buenos Aires, Argentina; Ottawa, Canada; Beijing, China; Tokyo, Japan; Moscow and St. Petersburg, Russia; and Taipei, Taiwan.

BTS welcomes all engineers, consultants, and others associated with the broadcast industry to attend the 54th Annual Broadcast Symposium. This event offers the latest

engineering information about the latest broadcast technologies for radio, TV, antennas, propagation, and advanced digital television and radio.

Betamax Under Siege - Again

The Senate Judiciary Committee, responding to the hail of brickbats that greeted Senator Hatch's "Induce Act," asked the Copyright Office to propose something that would be more popular with the technology community. Here's the heart of what it came up with:
Whoever manufactures, offers to the public, provides, or otherwise traffics in any product or service, such as a computer program, technology, device or component, that is a cause of individuals engaging in infringing public dissemination of copyrighted works shall be liable as an infringer where such activity: (A) relies on infringing public dissemination for its commercial viability; (B) derives a predominant portion of its revenues from infringing public dissemination; or (C) principally relies on infringing public dissemination to attract individuals to the product or service.
You can read the entire proposal here [PDF].

In other words, for all wireless and networked (i.e., "dissemination") technologies and services, the tried-and-true Betamax defense would be replaced with the new "3-part test" in the paragraph above.

This reminds me of the bill introduced in 1906 at the behest of music publishers, which would have given them the exclusive right to make machines capable of reproducing sound. In essence, the Copyright Office is proposing that copyright owners get a new exclusive right over a certain subset of machines that are capable of "disseminating" copyrighted works.

If this isn't about using copyright law to squash disruptive technological innovation, I don't know what is. Transport yourself back to 1976, substitute the word "reproduction" in place of "public dissemination," and you would see the VCR and the cassette recorder banned. Today, because any effort to ban those kinds of private copying technologies would result in public outcry, the Copyright Office takes aim at the technologies of the future: wireless and networking.

Some try to justify this arbitrary line between past and future by saying "but mass distribution is different." Of course, that's what the entertainment oligopolists said about "mass reproduction" and "mass broadcasting" back in the day. Only because they were not able to stop those technologies did they discover the new business opportunities that they enabled.

So let me tell it like it is: The Copyright Office has, today, come out with a proposal that is profoundly and fundamentally anti-innovation. Were it to become law, it would be very bad for creator and consumer alike.

Armed Forces Radio Network Supports Families of American Troops

The Armed Forces Radio Network will raise funds to help families "torn apart to defend America." AFRN owner Shaun Kroese said, "We have taken it upon ourselves to be there. After all, they are fighting crime, corruption, fires, and a war for freedom."

AFRN will provide funding for housing, medical, scholarships, and many other needs to the families of armed forces members who have been killed or critically injured in the line of duty, as well as for victims of crime, terrorism, fires, and accidental death.

AFRN is a nonprofit operation. To make a donation, get more information or listen, visit www.afrn.net

ADS VideoMPX...Making Video You Can Take With You is Ready for Review

From: Andy Marken andy@markencom.com

Taking a DVD movie with you is old hat. Now, ADS lets you take YOUR video -- personal and business -- and play it on virtually any device -- Palm, Pocket PC PDA, Portable video player, DivX players, digital media receiver (such as the new ADS Tech Media-Link) and yes, your notebook system!

Too cool!!

Send your pure, uncompressed video over the USB 2.0 connection and compress your business video presentation, vacation, kids' sports events, family outings or last weekend's embarrassing moments as a MPEG-1, DivX or Windows Media 9 (WM9) file -- you choose the compression. Store up to 2 hours of WM9 or DivX video on a CD. Or store the video in your ever-with-you pocket device.

Want to customize the video? Go for it! Use the powerful editing tools to add video filters, adjust audio levels, and add fades, wipes, effects, titles, voice narration and more. With the Movie Wizard software, it's a snap.

Globalstor's Announces 9.6TB Hi-Definition Video Server for Real Time, Uncompressed Video Playback

New ExtremeStor-HD Provides Up to 900MB/sec. Raw Sustained Performance

During this year's HD Expo, Globalstor Data will introduce the ExtremeStor-HD. A low-cost, high-performance fault-tolerant hi-definition video storage server, the ExtremeStor-HD incorporates 24, 250GB hot-swappable SATA hard drives for up to 6TB of local storage or 24, 400GB hot-swappable SATA hard drives for up to 9.6TB. Using RAID 0, the ExtremeStor-HD is capable of achieving up to 900MB/sec. sustained raw performance, or in excess of 600MB/sec using RAID 5.

Ideal for today's data-intensive enterprises, Globalstor's ExtremeStor-HD is conveniently packaged in a single 5U rack mounted enclosure, supports RAID levels 0, 1, 5, 10 and 50, and is entirely platform independent. Featuring RAVE HD for Linux™ software and an AJA Xena-2™ digital card ExtremeStor-HD allows users to capture, record and playback uncompressed hi-definition video in real time. ExtremeStor-HD also provides machine control via RS-422 standard 9 pins Sony protocol with playback in HD-SDI and SD-SDI.

"The ExtremeStor-HD is the ideal hi-definition server solution for today's growing number of demanding video applications where anything less than real time is unacceptable," said Scott Leif, President of Globalstor Data. "The ExtremeStor provides unmatched performance and a level of redundancy that practically assures zero downtime. In addition," Leif continued, "the low TCO makes the ExtremeStor-HD a logical choice for virtually any size professional video environments."

ExtremeStor-HD Features:

- RAVE HD for Linux™ software
- AJA Xena-2™ digital card
- Up to 24 drive bays
- Dual independent 2GB Fiber Channel host interface
- 1000MB/sec data transfer for demanding HD video editing applications
- Dual independent RAID controllers
- Supports RAID levels 0, 1, 5, 10 and 50
- Redundant load-sharing power supplies and cooling modules
- Hot-swappable, field replaceable power supplies, fans and SATA drives
- Remote management and monitoring

Experience the new ExtremeStor-HD during the HD Expo at the Globalstor Data booth, or online at: www.globalstor.com

New/Different Technology

Leaps and bounds

From: Albert V albert@verbrugh.net

An IBM-built supercomputer being assembled for Lawrence Livermore National Laboratory has attained a record 70.72 trillion computations per second, the Energy Department recently said. IBM's Blue Gene/L system, being assembled in Rochester, Minn., was able to sustain a speed of 70.72 trillion floating point operations per second during tests in the past month running the Linpack benchmarking software. Linpack involves solving a complex series of mathematical equations. IBM has been researching and developing the Blue Gene system as an experiment in building extremely powerful systems that take up less space and consume less power than traditional designs. Livermore next year plans to install a system four times as large as the one that set the record.

ADS Tech's New Portable Dual-Link SDI Controller Delivers Bi-directional DV and SDI Transcoding in the Field

High-quality Video Conversion and Audio Management Solution for Mobile Users

ADS Tech (www.adstech.com) announced its new portable Dual-Link SDI™ (Serial Digital Interface) controller. The Dual-Link SDI is a 1394a bi-directional device that converts DV audio/video to and from SDI video, the broadcast standard digital interface, with embedded AES/EBU digital stereo audio. Windows® XP and MAC® OS X-compatible, the ADS Tech Dual-Link SDI can be used with a portable battery pack, making it Ideal for on-location news and event broadcasts or for transporting content to a post-production laptop editing system. A convenient decode/encode switch lets users change modes without being connected to a computer. Converted DV projects can also be transmitted over studio SDI network backbones.

Priced about 30 percent less than similar DV/SDI converters, ADS Tech's portable Dual-Link SDI was specifically designed for video professionals that have tight deadlines for producing high-quality content in the field, in a satellite van or in their studio. With the device, they have a single, affordable solution that works flawlessly with Betacam SX equivalents to the Sony BVW-55 Betacam SP Editing Recorder such as the DNW-A25 Betacam SX Portable Editing Recorder.

The ADS Tech SMPTE-259M compliant SDI converter is enhanced with an embedded audio transmitter and receiver that conform to the SMPTE 272M-A standard. The high picture quality of SDI is embedded AES/EBU digital stereo audio with a sampling frequency of 48kHz (synchronous to video) to ensure high-quality audio. Other features, such as the default start-up options, let the user customize the device to speed workflow. Auto detection and support for both PAL and NTSC make the device versatile for international use.

Measuring just 5" x 4" x 1.8", the portable Dual-Link SDI converter features 4-pin and 6-pin 1394a ports for DV Input and output and two SDI BNCs for simultaneous SDI signal broadcast as well as separate VITC input and output BNC connectors (SMPTE 12M) for analog decks. A 4-pin DIP Mode select switch enables audio pair selection and other modes. The device can be powered using the 4-pin male latching XLR for battery input or the DC power adapter input. A 9-pin D subminiature is also included for RS-422 remote machine control per the Sony protocol.

Classified

Nothing to post this edition

Information & Education

THE DASH TO BE FIRST

Raytheon, Regency/TI and the unknown Tokyo Tsushin Kogyo company from Japan fiercely sprinted to have the first transistor radio on the consumer market. The Regency/TI team reached the mark in October, 1954, while Raytheon crossed the finish line the following year, and Tokyo Tsushin Kogyo finished shortly thereafter. Getting a transistor radio on the mass market for the third company was an important milestone to help Japan's suffering post WWII economy and self-image. This company finally changed it's name so Americans could pronounce it.....the new name became Sony.

The Regency TR-1 story, based on an interview with Regency co-founder, John Pies (partner with Joe Weaver).

http://www.regencytr1.com/Regency_Early_Years.html

The Limits of SpongeBob SquarePants
One Canadian's Wireless Neighborhood Network Could Someday Serve Us All

From: Monty Solomon monty@roscom.com
By Robert X. Cringely

Like many of us, Andrew Greig put a WiFi access point in his house so he could share his broadband Internet connection. But like hardly any of us, Andrew uses his WiFi network for Internet, television, and telephone. He cancelled his telephone line and cable TV service. Then his neighbors dropped-by, saw what Andrew had done, and they cancelled their telephone and cable TV services, too, many of them without having a wired broadband connection of their own. They get their service from Andrew, who added an inline amplifier and put a better antenna in his attic. Now most of Andrew's neighborhood is watching digital TV with full PVR capability, making unmetered VoIP telephone calls, and downloading data at prodigious rates thanks to shared bandwidth. Is this the future of home communications and entertainment? It could be, five years from now, if Andrew Greig has anything to say about it.

The advantage Andrew Greig has over most of the rest of us is that he works for Starnix, an international Open Source software and services consultancy in Toronto, Canada. Starnix, which deals with huge corporate clients, has the brain power to get running what I described above. And it goes much further than that simple introduction.

http://www.pbs.org/cringely/pulpit/pulpit20040930.html

DVD Insider

Sometime – you know in all your spare time – you've got to take in any one of the trade shows around the globe. Two recent ones are right down your alley were CEDIA in Indianapolis and IBC in Amsterdam. CEDIA (Custom Electronic Design & Installation Association) is always in Indianapolis – who knows why – and IBC (International Broadcasters Conference) is always in Amsterdam – that's easy to understand. Of course you couldn't forget the Fall IDF (Intel Developers Forum) event where all of the chip people, system manufacturers, peripheral people and important people tell us what we can expect to see next year … and how good it is going to be for us.

Why are these shows so cool?

Want to see what production solutions will trickle down from the broadcast and super-pro users to regular people in a year IBC is the show. This stuff is so advanced it hurts your eyes and devastates your checkbook (or in our case credit card). Want to see what the rich and famous will be installing in their "homes" then CEDIA is your show.

Then the IDF people spend a lot of super techie time discussing how they are going to have us connected 24x7 at home, in the office, in the air, in the coffee shop. You get the picture.

IBC Production, Postproduction
The two are interrelated because it's all about content.

One thing you have to say is that the Dutch know how to throw a party. IBC highlighted digital cinema with eye and ear boggling projection technology, digital intermediate, new camera technology and audio developments. Way out of the reach of mere mortals there were a lot of hints from Sony, JVC, Matsushita, Thompson and others that we'll be getting portions of the technology this next year in the professional and prosumer products.

300 categories, 3,000 companies and some of the most fun, most exciting hardware, systems and software were on display. So what can "we" expect this coming year? 3D video production hardware will be really hot this next year for both prosumers and consumers. The new postproduction software is going to enable HD production for almost everyone and be very affordable. That means we're going to be able to see really bad personal and family videos very clearly.

While the rest of the world is already into streaming video (especially the Pacific Basin) it is just coming to Europe. That means the way the U.S. drags its feet we'll probably see it here in a couple of years. Internet TV is well established in Japan and Korea and there are pockets of it in Europe. Just might be the thing that drives the PC into the living room.

Bring It On Home

CEDIA was all HDTV this year. Well that and immersive sound, 3D video and ideas how you can always ensure you get the best seat in the house by owning the house.

While there are hundreds of new audio and video solutions for the common man/woman there are also those drop-dead set-ups for people who want to double the size of their home and never leave their home theater. Sure there was a lot more on home automation and home networking this year but the stars are always the huge ultra High Def screens (see some of the photos).

There is certainly a place for the do-it-yourself home theater/home network/home automation offering but we believe it is still something you'll want someone to install for you. Despite how easy Cisco, Intel and their cohorts make it sound wireless UPnP and content anywhere, anytime is a great idea that is still evolving.

With the growth of bandwidth to the home with cable, satellite and soon the Internet there seem to be an increasing demand for people to set their own viewing schedules. The

networks and Hollywood are working hard to determine ways to track what you watch; when you watch it and that you don't copy that content and spread it around.

Content Moguls

In what some believe was a very creative and preemptive move; Sony not only has a big footprint in the content arena but has also done a very good job of closing the door on the DVD Forum's HD DVD format (20GB capacity). Their purchase of MGM gives them a film library that is bigger than even Turner's. With their push and the assistance of the 13 other Blu-Ray (25GB capacity) consortium you may be wondering where they will be storing their content this next year.

Sony made buckets of money over the past 20+ years on its CD royalties but hasn't fared well with the array of DVD formats. But tomorrow – more specifically the end of next year – is a brand new day. Not to be outdone, Toshiba, NEC and their backers formed the HD DVD Promotion Group to "promote development of HD DVD hardware and content, assure early product launches and promote the widespread commercial dissention of HD DVD hardware and software products in the marketplace."

Still looks like the race is too close to call.

The Road Coming Home

The best opportunity you have for getting a peek behind the curtain of products you'll see next year though is the Intel Developer's Forum. Granted a lot of the event is built around what Intel wants firms to design (it is their show after all) and our friends in Seattle but they have opened the horizons for all of us (illustration of home PC apps).

They were the driving force for the entertainment PC but the image is broadening as they gain experience and feedback. Slowly it is becoming an appliance and not a PC because well over 50% of the homes in the Americas don't have a PC and don't see a need. TV sets? Sure. Stereos, music collections? Darn right. Entertainment centers and home theaters? The number is rapidly growing.

Dell's human factors engineering manager, Keith Kozak, had the most realistic approach to the PC – CE challenge and who knows Dell just might be the PC company that gets it right. His chart showing the growing gap between ease-of-use and product features quickly showed that consumers really don't adopt the new technologies as rapidly as the engineers want us to because they are getting more complex, not easier.

Perhaps Walt Mossberg of ***The Wall Street Journal*** is right when he tears into products because they don't focus on the real customer experience. Translation? Engineers spend more time talking to engineers about neat technology rather than people at home to find out how they are going to use the new product…out of the box.

Real people don't talk about WAP, WEP, HTML, IP address, SSID, DSL. If people still have a tough time burning a CD, how can these firms hope to possibly set up a wireless network without a lot of technical support? Now your entertainment center requires the connection of a few cables, running some wire or plugging in a couple of boxes that send the signals thru the air, plugging in the power and hitting the on button. TV sets are even easier because the numbers of wires are dramatically reduced.

To make Intel's vision happen companies have to make a rapid transition from the early adopters to the late adopters. DVRs are starting to do that. Apple's iPod (and all of their me-too options) did it. At CES we'll see products from a few firms that are getting the message. A few will be PC companies but most will be CE firms.

While the all-in-one solutions are great to look at, it's the modular approach that will catch on most rapidly. People want to remotely manage their content and stream it to the TV or stereo using the remote control.

Intel's president and COO, Paul Otellini, weaves a marvelous tale of how people will use their system to record their TV shows, play movies or games and stream content to their receivers. Of course that's once the MS OS has warmed up. Using the same or similar chips, the CE people are taking a different approach that you'll see at CES. You hit the button on the remote control and BAM! the entertainment center comes on and you stroll through your TV, movie titles or music library.

That's entertainment!

Firms like ADS Tech have taken a different road because of their multimedia background. These firms let consumers add special purpose devices to systems they already have. There are going to be a lot of exciting products like these at CES that people can add that are UPnP and home entertainment focused.

Media receivers wirelessly connect the PC in the den to the TV set. PVRs on the PC let you go out to the TV box and capture shows you want. People with camcorders connect boxes that let you put your content onto your HD entertainment library or burn them to disc. And the variety of these products continues but people add new capabilities as they want them rather than being force to commit to them all at once and then struggle to "learn it all."

The sanity check of IDF came strangely enough in the last day during what was to be the R&D segment. Pat Gelsinger, Intel's chief technology officer, had Vinton Cerf, often called the father of the Internet, on stage to put our connected world into perspective. Don't complain about the 52K connection in a hotel because five billion people have never connected at all. So downloading music or video are way beyond the majority of the market's reach. If they have digital they live in a CD and DVD world.

That won't change anytime soon so no wonder the RIAA and Hollywood are working on bigger and better ways to protect their cash cow content.

HP and Microsoft have promised us yet another digital entertainment strategy that is going to create a whole new, breathtaking consumer experience. Can you wait?

But even before they could tell us how good it is going to be, Sony must have driven through your neighborhood and noticed that you and your neighbors are packrats and never throw anything away. Or they looked around Osaka and the other cities and towns of Japan and noticed there just isn't enough storage space in their small homes.

CEATEC Japan held a lot of excitement and even the 9th Typhoon of the season couldn't dampen the excitement. However, the high wind and rain did cause the doors to close early.

Positive Outlook for Digital Cinema Acquisition, Survey Shows

Data from the recently released 2004 - 2006 Digital Cinema Marketplace Report conducted by SCRI International (www.scri.com) reveal that fully 39.4% of producers are already shooting feature films on digital as opposed to film. The incidence skews to the film production and post vertical market, at 47.1%, and less to the video sector, at 35.2%. Just as importantly, there is a strong degree of intent that could drive acquisition of digital hardware in the next few years, especially if HD prices do indeed come down. In the last edition of this survey, most of the cumulative use or intent to use was confined to the current year -- 2003. But in 2004, the annual cume is projected to spike to 72.2% in 2005. While this seems a slightly slower progress than previously forecast, it may also reflect more careful planning -- producers are taking digital more seriously. In fact, the pattern of intent holds true internationally.

Data for the 2004 - 2006 Digital Cinema Marketplace Report (www.scri.com/dc2004.html) was derived from extensive surveys conducted by SCRI, in conjunction with several industry sites including the Digital Cinema Society, Post Magazine, Digital Video and other related industry sites. The report is divided into the four phases of the Digital Cinema Process, namely: Acquisition; Postproduction; Distribution and Exhibition / Display. To view table of contents online go to: http://www.scri.com/dc2004.html

For more information on SCRI's 2003-2004 Broadcast/Pro Video Product Reports, go to: www.scri.com/sc_reprt.html or contact info@scri.com

An install tip

From: Edwin Bukont ebukont@comcast.net

For those trying to install wires onto those multi-contact WAGO or similar connectors, and finding you can't always pre-wire the bundle and shove it thru the holes in the rack or transmitter, or wishing you had three hands when putting it all together, here is what I do.

Some transmitters use 10/32 rack hardware for holding on cover plates. I take my Panavise off its weighted base, and put a 10/32 (or 12/24) rack screw thru one of the holes, then mount the vise to the transmitter near where the connector bundle has to terminate. Leave enough service loop to get the cable to the vise, and now you can clamp the connector to hold it steady while your hands are free to use the tools for pressing the contact and inserting the wire.

A pix of this is coming in a future issue of Bisset's workbench column in RW.

Features, History & Opinions

By Bert Weiner biwa@earthlink.net

Analog Telco Circuits Bit The Dust...

Keep in mind, the telephone companies are still handing you analog audio at the demark. There are problems that creep up in digital carrier systems. Some of the more obvious problems are very audible "birdies" and "whistles". These do not show up on normal TIMS (Transmission Impairment Measurement Test Sets). That's because the birdies and whistles are made up of a series of short, narrow, audible pulses, usually in the region of 8 KHz that the TIMS does not respond to but the ear does. It is possible to hear severe birdies and still have the TIMS show only 2 or 3 dBrn of noise. (Zero dBrn is referenced to -90 dBm, so 3 dBrn is equivalent to -87 dBm.) They can be seen using a Low Frequency spectrum analyzer with a peak store mode. If you complain about the problem you may be told that, "The circuit meets specs". And it may well meet specs as measured on a TIMS. But, there's more to it than that, and a lot of installers and even their supervisors don't know about or will not admit to. Some may even tell you that it does not apply to this case. BS!!! You can hold them to resolving this.

Bellcore, now Telcordia, has a publication which is a set of specifications and required tests on audio program circuits. The publication number is, TRNPL-00037. This publication specifies a "Listening Test" as part all of the testing of a circuit, particularly in AP4, 15 KHz circuits, mono or stereo pairs. It says that there shall be a listening test

for 10 minutes. If any tones (including whistles), clicks, pops, ringing generator or voices are heard, then the circuit fails to meet specs. Period, no exceptions. It goes on to state that during the listening test, the noise floor will be raised to the operating level and you should not hear anything other than normal hiss. The fact that the circuit is delivered by a digital means does not negate the listening, or any other tests or requirements.

If you deal with telephone company audio circuits, it would be a good idea to order TRNPL-00037 from Bellcore. All telephone companies in North America are required to meet these specs, not just the Bell's

I will try and find my copy and make it available. Since Bellcore has evolved into Telcordia it is difficult to reach anyone. Today, The SBC installer came in to install two local loops. One of our clients is moving their studios and they ordered two local loops to our studio from theirs.

The installer came in and put in a new digital frame. The frame houses two PulseCom Apt-X Program channel access units. These stack 64K digital segments to get audio. A single 64K segment can give 5 and 7.5 K audio. Two segments are needed for 8 and 15 K audio. The brochure claims they: "Reveal all the subtle nuances in the audio lost with analog circuits"

In fairness, there are two Jensen transformers on the card. They sync (as in stereo sync) by plugging a short RJ-45 jumper between cards.

SBC claims that all new and upgraded circuits will be of the digital type. However, they will still service analog loops indefinitely.

Another institution bites the dust.....

On another subject:

One Saturday morning I did a remote for a local 50 KW talk station from a store that was closed! We had to fish the phone lines out through a mail box with a long piece of stiff wire. It was a good thing the phone company installed the lines next to the front door. The table was a couple of barrels with a warped plank across them. It was also a good thing that I carry a generator. Great planning on the part of the sales department. Two people showed up. I think they were both from the station's promotions department. Great three hour remote!

This is how they plan to encourage digital?

From: Barry Mishkind barry@broadcast.net

Lawmakers believe the analog TV spectrum can be put to much better use and can generate billions in auctions to telecom companies. So Congress is considering paying Americans to ditch over-the-air analog TV and switch to digital. Michael Grebb reports from Washington.

http://go.hotwired.com/news/politics/0,1283,65041,00.html/wn_ascii

Can I Speak to a @#$% Human, Please?
Voice support systems that detect agitation

Being lost in an automated phone support system can be one of the more frustrating experiences of getting (or repairing) a broadband connection. To resolve such complaints one company has developed technology that recognizes when you're irritated (or when you swear) and connects you to a human being. As this CRM buyer article explores, customers aren't opposed to automation (they've flocked to ATMs because they function nearly as well as a live teller), they just hate being lost in a technology support maze. To make automated voice support systems less efficient at losing (or pissing off) customers, one vendor is working on a solution: a system that measures vocal wave patterns to identify "angry language and inflection", and immediately connect the customer to a live representative. However as this Sunday Herald article notes; the inaccuracy of modern voice recognition has many wondering about the system's effectiveness.

Editor's Note:
What follows are a series of stories from various engineers across the country about their first electrical experiences and flubs. It is also said that confession is good for the soul.

Experience Is the Best Teacher

From: Ron Castro ronc@sonic.net

I'm glad to see there are some people who were as 'nerdy' as me! When I was 21, used to stand in the parking lot of KPOI, Honolulu (I was CE there) with fluorescent light tubes. 5 kW on 1380 diplexed with 5 kW on 590 (KGMB now KHSS) on a 415' self-supporting tower, made quite a display. I never got me into plasma physics, but it did get several beer cans thrown at me by the drunk neighbors in the high-rise apartment building, build just 100' from the tower!

There's this "knuckleheads in the news" story I read once (maybe it was an urban legend)...the cops found a man dead under a large utility company transmission tower. His genitals were burned and five empty beer cans were found on the ground. At first they thought it might be some ritualistic murder, but they later found that the man was despondent over his girlfriend leaving him, so he climbed up on the tower with a six-pack to watch the sun set. After five beers, nature called, and you can figure the rest! The one full beer can up on the tower was tip-off about what happened.

From: Ed Bukont ebukont@comcast.net

I know one 'girl' whom I dated that is now a senior physicist with the US Naval lab. At the time I knew her; one of her greatest joys was taking various fluorescent tubes and finding out, empirically, what frequency, power and distance from the tower it took for various AM channels to light the lamp. Now she is an expert in plasma physics, and gets paid big bucks to do strange things with high voltage and gases in suspension, pretty wicked stuff.

From: Scott Dennis Scott.Dennis@nnbradio.com

The brother and his apprentice were out working, and there were a couple of wires sticking out of the panel, one white and one black. The brother scratched his head. The apprentice asked, "What's the problem?" The brother said, "Hmm. Grab onto that white wire." The apprentice did so. The brother said, "Do you feel anything?" The apprentice said no. The brother, with relief, said "Good! Now be careful not to touch the black one because it will kill you!"

He thought it was dead, but alas it was hot.
It's still live, and he is not.
He knew in his head good practice well founded.
The circuit's not dead, until it is grounded.
But this time he hurried, didn't take time to test it.
He was tired, and cold, and needed a respite.
A respite he got, for it will be a long one.
One dead and one hot, and he grabbed the wrong one.
There's been many like him, many have died.
The cause of their deaths was ASSUM-A-CIDE.

One more story. This one earned me the name Sparky among my coworkers.

I was working at a federal building in the floor trenches. Working on data cables. I needed to strip some wires and connect an Ethernet jack. So I pulled out my key ring,

used the knife attached to strip the wires. Suddenly I saw a flash and heard that BZZT sound. Scared me and I jumped back, wondering how a data connection could have voltage on it. When I looked in, I saw an exposed 110 V cable that ran through the same trench. Apparently a chair or table leg had gone through the hole and worn off the insulation. My keys had dangled in and touched both it and the grounded trench itself. It had fused some of my keys together and melted parts away. While in my hands! And I never felt a thing.

It just goes to show that we can't make ANY assumptions. Like Reagan said, "Trust but verify!"

Another lesson is to use the right tool for the job even if you don't think you need it.

I now try to always have an AC Pen with me to hunt for unknown hazards. And like Chuck said it is good to make sure your breakers are working like you think they do!

OK, just one more, I can't resist.

In my 6th grade science fair I had a teacher who said he wanted to teach me about a trick used in World War I.E. had me take a mason jar, fill it with water and put in a tablespoon of salt. He then took a ZIP cord and stripped each conductor about a half inch. He then plugged it into the wall and plunged it into the liquid. It bubbled and boiled furiously and a strange green gas seeped out. Wow, was I surprised it didn't just explode or something. Anyway, he thought I should enter it in the science fair!

Fortunately my parents thought generating Chlorine gas in a gymnasium filled with people might (might!) not be the best project. Instead I entered an o-scope hooked up to a microphone.

How's that for a stupid trick! I don't think I'll show that one to my kids

From: Tony Dinkel tonydinkel47@hotmail.com

Sorry, but I can top y'all. I never really had a run in with electricity in my young years, except for getting the inductive kick off of an old 500 telephone and wondering why, once was enough.

This goes back to junior high school science class. Its science class project time and most of my proposals had been rejected. Seems my plan to build an Apollo capsule and perform a simulated 2 week mission to the moon had to be simplified. The teacher suggested, why don't you focus on the rocket engines? Build a model and explain how it works. So I set out to build a rocket engine. I had been warned about liquid oxygen so that was out. Anhydrous ammonia and hydrogen peroxide, also. Unsymmetrical dimethyl hydrazine and red fuming nitric acid? Mom wanted it nowhere near the house.

OK, so I took apart a bunch of 30 minute road flares and dumped the stuff into a coffee can. Just about got the fire department called on me for that one. No thrust plus it melted the coffee can! Dang, how could I build a rocket engine without dangerous chemicals?

Then I figured I had it!!! An arc jet!!!

So I set about building an arc. I sawed into an old 1.5volt zinc carbon battery. I discarded the manganese paste and discovered the beautiful carbon rod hidden within. I cleaned it off and sawed it in half. Since I only had one, I had to saw it in half. Well, that left me with one rod that had no terminal. Shouldn't we file the rods to a point? Nah, no time for that! Let's just put them together and see if we can strike an arc!

The rods were mounted in their custom two by four assemblies so they would not accidentally fall together. The 110 volt ac line cord was stripped and connected to the rod that had the terminal attached. Then, we had a high level engineering meeting to decide how we were going to connect the other side of the ac line to the other rod. We got it! Just strip it back a long ways, fan out the stranded copper (for a low resistance connection) and hold it on with tape. Well, all I have is my dad's 1 inch masking tape. That's good, use it!

OK, power on! (plug in the cord). The lab (dad's garage) was cleared of all nonessential personnel, little brother, kids from across the street and little girl from next door. Slowly I moved the two rods closer together, expecting a beautiful blue arc to begin flowing at any time. I had them about a half inch apart and was getting a little discouraged when the fat kid from down the street said..."touch them together to start it!" So I did.

KaBlammm! No arc but the sound, the lights dimming, the smell, the flash of light, the air being filled with tiny bits of flaming masking tape, not to mention red hot bits of molten copper. WOW, let's do that AGAIN!

Needless to say, I never got an arc jet running. But all it took was one firing in Mr. Rucci's science class at Stacey Intermediate in Huntington Beach, CA for him to say, "that's good Mr. Dinkel, I suggest you quit while you are ahead!"

From: Dave Dunsmoor mr.fixit@min.midco.net

I don't recall my "first bite" exactly, but the time I discovered the power in the wall socket will stay with me forever. I was perhaps 10 at the time. Had been to the hardware store, and with the spare change in my pocket, bought a male zip cord plug, because it looked neat. Went home, wired it up to two pieces of lamp cord about a foot long, and peeled back the wire strands so only one on each side was sticking out. Plugged it in and scratched the two wire strands together to see if I could get a spark.

Wow! what a spark! I recall a big ball of fire (blinded me for a bit), and dad hollering down the hall "what the hell's going on down there"?!

From: Lamar Owen lowen@pari.edu

My first and stupidest RF bite was while working on a 5KW ND AM's ATU. The cause of the action was a cow that had yanked an interlock line out of the ATU (overhead feedlines should be out of reach of grazing cattle!). The interlock was the night/day one that prevented the transmitter from going to high power in DA mode (which would melt down the night network in the ATU in question, which is the ND tower by day and a negative tower by night). I jumpered the interlock at the TX, disconnected it (to prevent 110 shocks) at the interface, and proceeded to reconnect the lugs to the RF contactor in the ATU. During this time I was careful, and was doing it at 5KW output (less than seven minutes worth of work is OK RF exposure-wise, or at least it was then).

What I didn't count on was a second cow. For some unknown reason, the cow had stalked up behind me, outside the tower fence, and had started licking the chain link fence. Apparently there was enough RF there to cause the cow some discomfort, for right about then, twenty feet behind me, this cow moos loudly. Very loudly. I had my hands inside the ATU, short sleeves and all, and the moo scared the daylights out of me. My left arm came down flat on the input feed bus from the coaxial input to the RF contactor. It didn't stay there long. I had a 'skid mark' from my elbow to the second knuckle on my left pinky for several days. For those who have never been bit by AM RF, the feeling is not unlike having a torch flame hit you (unfortunately I have experienced that pain, too, with propane. Fortunately not with oxyacetylene).

That was the last time I did RF-hot ATU work.

However, the single worst RF burn I have ever gotten was from a piece of loose wire. Yes, loose wire, about 30 feet long, inside the tower fence at WGCR one day. I was outside the exposure ring and picked up a piece of Romex from off the ground. It was just laying there, not connected to anything. My palm hit exposed copper, and smoke boiled from my palm. It arced strongly enough to where I heard demodulated audio for a brief instant (until I let the Romex go, that is). That burn took a long time to heal, since it penetrated the skin and began running internal tubing (a vein, I seem to recall). I had a nasty bruise from the rupture of that vein (looked a lot like a blood blister), and a badly charred place for weeks. The place wasn't large; about the size of a pinhead. But it hurt like nothing else I've ever had hurt. I'm told only high power laser burns hurt worse; they have the bad effect of being painless when the laser hits you, and only hurting later, due to ablated (as opposed to charred) tissues. I have fortunately never experienced that pain. A 1-2W laser (somewhat high power) can punch a hole completely through your hand, and you'd never feel it until ten or so minutes later.

WGCR's near field is nasty, but that's because it's a short stick with a lot of reactance, a low resistance, and 22A of current.

From: Michael Holderfield mholderfield@sw.rr.com
Earliest: Butter knife into the AC outlet when I was four.

Stupidest: Pissed on an electric fence when I was fifteen to see what would happen.

From: Michael Wood, Cincinnati michaelwood@fuse.net

My grandfather Wilbur Wright was a retired railroader, and back in the nineteen sixties, his best friend was a nearby retired farmer named Al Gutzwieler. They lived just outside a small town called Weisburg, Indiana. These two gentlemen of leisure, at that time in their sixties or seventies, shared a passion for Hudepohl Beer and the Cincinnati Reds on WLW radio. They would alternate locations, sitting in the early summer evenings in the yard of one or the other, listening to the radio and drinking beer. The visitor would bring a case of long neck beer bottles, and they would sit and enjoy life as they listened to the game, drank all the beer and watched the sun go down.

Since Al lived a few miles away, Grandpa Wright would sometimes feel the call of nature as he navigated the lonely rural road on the way home. One day, as he answered nature's call, an automobile cruised up the deserted lane, so he walked a little further from the edge of the road. There he encountered an electric fence.

From that day until he died, every time he was drinking, just about the second or third beer, he would pass along the most important knowledge he had gained over the years, "Boy, don't ever piss on an electric fence". True story, and he passed along a lot of other important information as well, and so powerful was his personal delivery of this experience that not one of the current generation, to the best of my knowledge, has ever had such an encounter with an electric fence. I believe his interest in women was purely gallant after the encounter. I still look around before pissing in a field.

From: James "JD" Davis jdavis@lvradio.com

My first bite was from a flyback transformer on an old Curtis Mathis console TV. 16 years old, not as bad as the TV I pulled over on myself when I was 3. That hurt much more.

From: Steve Ordinetz steveord@bit-net.com

Heh heh, back in the 70s I was checking the timing on a car. Had one of those timing lights without the inductive pickup where you had to put the little adapter in series with the #1 spark plug, and hook the wire from the light to it. Wire had popped off, and I tried to re-connect it with the engine running. Yikes!

From: Bill Kressbach wkress@tc3net.com

I had an uncle who when the lawn mower wouldn't start decided that the magneto wasn't working. So to prove it he grabbed the end of the spark plug wire and pulled the starter cord. I never liked that uncle much, but he was sure fun to watch that day. :-)

Where is television heading?

From: John Willkie johnwillkie@ixpres.com

I think it's high time we start thinking -- and not posturing -- about the future of television, instead of whining about the present.

I think that we can do this in such a way that deals in broad and perhaps smaller strokes with a variety of countries.

I use the term "television" because it's broader than broadcasting and more relevant to the plethora of sources of content in most countries.

I have been thinking a bit about this since I saw "Dog: The Bounty Hunter" on A&E a few weeks ago. For my part, I can even address this subject without saying a bad thing about cable.

Here's an idea: cable's best chance for truly competing with broadcasting, even flanking broadcasting, is to emphasize localism: local sports, local news, and local public affairs. That may sound like competing head on with broadcasting, but who thinks that broadcasting truly covers ANY market?

I see this starting to be emphasized in San Diego, if even baby steps. Cox Cable San Diego offers most of the Padre games, most of them live in HDTV. That's a satellite-killer: even if you subscribe to a full Padres or MLB package on satellite, you'll see fewer Padre games, and they won't be in HDTV. The Padre games are on analog, digital and HDTV tiers, at no extra cost to viewers beyond the tier. For Padre fans, this super-serves them, at a very modest price point.

It can even be offered as a reason to not permit ala carte cable pricing, which I think is inevitable. If the Padres were ala carte, few fans could afford to watch.

In a perfect world, cable would have local channels, regional channels done by a consortium of cable companies (not necessarily like Fox Sport's regional channels) and the more popular national programming services. Broadcasting would increase local programming in this perfect world, yet still have high value, first run programming that is exclusive to the market.

And, satellite would provide the 500 channel universe that is long hyped but otherwise unseen. If you wanted to see live news from Iran in Farsi, that would be available on the national satellite services, and would be featured on cable (perhaps even broadcast) in markets or systems with high percentages of Farsi speakers.

What we have right now is vaguely differentiated services.

I was talking about "Dog." It used to be that cable firms had low-wattage programming and off-network reruns.

In recent years, broadcast networks -- almost emulating the late 1970's when they ruled without rivals or pretenders -- have gone for programming stunts. Instead of the high-quality dramas and comedies that require much talent, capital and resources to produce, the networks went for fads, stunts and low-quality, high interest programming like, well, I won't mention titles, but the genre is aptly called "unscripted, staged" programming.

Doing such stuff at this time -- particularly among the big three or four -- is, IMHO, the single dumbest thing that U.S. network television is done. The only step down from this is the frenetic, hyperbolic, "game shows" and such that was and is a staple of Japanese commercial television -- the kinds of programs that are used as voice-over fodder on Spike TV.

The current phase is, however, bad enough. A&E, with the same number of viewers as a middle market TV station, can present one of the so-called reality shows at the same or better quality, and with at least a little less irreality, than can the major networks.

If anyone has seen the attempts at dramatic programs that A&E has tried recently, they have the lesser quality of production and writing as the average Canadian network show; this eye can spot a Canadian show (like "Doc") in about four frames. If you need to listen to hear it, just listen for a show where the city is called "metro."

There is nothing wrong with shows commissioned or produced by Canadian networks, except they have lower production values, generally weaker writing, and actors who struggle to have a half-American accent.

They are immensely better, to this eye and ear, than the best "reality" show.

With the advances in digital media production systems, and if network shows follow the current trends, in short order, people working out of garages in Idaho will be doing shows that are as well written and produced as the average network show. Tactically, reality shows might be good for this quarter's bottom line; they are long-term liabilities of immense proportion. Little or no re-run value (aside from perhaps being shown on a cable affiliate of the original licensee.)

Let's face it folks, distribution of programming is getting cheaper to accomplish on a national scale, and will get even cheaper. You don't need to reserve satellite time: just send the digital media assets via IP networks.

I believe that local into local is likely to be the bane of satellite TV.

I just noticed on cable that "Desperate Housewives" is being shown on Lifetime a few weeks after airing on ABC. I guess that helps with the license fees, but as DVRs become more prominent, there will be less advantage to such short-time-frame repurposing.

I tuned around during the three election debates I saw on TV. What a waste of spectrum. Not the content, but the 8 or more channels showing the same thing live. I hope that at least ABC News Now aired the debate later, since people who work at night (bartenders, cops, medical people, waitrons) feel disconnected enough from real life.

I've had a hunch for sometime that there would be at least one fewer network news divisions in the future than there are now. Can't a network "farm out" their news to another company?

I've said this before, but I also see programming lining up on linguistic markets, at least until dual audio decoders are available and until the day that graphics (logos, titles, special offers) are rendered and overlaid in the STB/tuner instead of being in the video stream.

Rather than charging for programming parse, stations and networks could provide busy screens to free TV viewers, and provide payers with an uncluttered screen, or give them the ability to watch commercials that don't talk about four-hour erections, or with no pharma ads, or targeted ones.

I don't think that the model is broken, but there are cracks in them, and one doesn't need to have much foresight to perceive a few train wrecks in the making.

This list is a good place to discuss these issues/items (and the many others that I am unable to perceive or articulate.

All television systems need to do more with less in now, and in the future. Some people at stations and systems know this innately. There are reasons, and legal schemes available starting sometime next year, to merge cable and broadcast systems, even without merging, we can have unified program guides.

For media that cover and foster change, television can be very resistant to the need for new thinking in their own businesses. It's time to CHANGE that.

Cleanup of the WPMI

Some of the crew working on the cleanup of the WPMI-TV tower just outside of Mobile Alabama thought our readers might like see some pictures of the devastation.

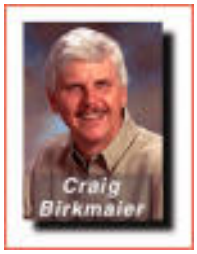
http://www.tower-pro.net/Pictures_of_interest/WPMI-Cleanup/index.htm

http://www.tower-pro.net/Pictures_of_interest/WPMI-Cleanup/index.htm

Complete cleanup of the site will take quite some time.

The Controversy in the recent Political Campaigns

From: Craig Birkmaier craig@pcube.com



Unfortunately, like the world of analog television, the worlds of television and politics are tightly coupled. Remember, it is the blood suckers in Washington that let this train wreck happen. They love to create conflict between competing industries to enhance their blood sucking abilities.

We are all the victims... $40/mo for "Free TV"

If you were intellectually honest, you would recognize the fact that this election is a referendum on the continued dominance of the "Election Channel." It is now clear that the entrenched media oligopoly is willing to use tactics, once associated with propaganda machines like Pravda, to influence the outcome of the election.

The cracks in the dam are now quite visible. When it bursts things could change dramatically.

This is especially true as it relates to appropriate allocation of spectrum for applications that are in the public interest. We are about to reach a major fork in the road that leads to the digital future. We can create an infrastructure that can unleash phenomenal innovation and economic growth, or we can let the blood suckers and the media oligopoly have complete control over the flow of news, information and entertainment.

Rightsizing TV

Troubles in the rear-projection market may be a sign that TVs are finally getting too big.

By Eric S. Brown

On the eve of the World Series I decided to engage in a bit of "wishful shopping" and check out the latest high-def TVs in the hopes of more richly celebrating the Red Sox' idiot-savant ascendance toward destiny. Yet after an hour of meandering among giant displays with acronyms like LCD, CRT, LCOS, and DLP, I felt much the way St. Louis Cardinals pitcher Jeff Suppan would feel a few days later during his moment of metaphysical contemplation between third base and home: "Which way to go?" Back at home, two more questions came to mind: where was I going to find $4,000 for a TV and where was I going to find room for it?

Since televisions first started monopolizing brain cells in the early 1950s, the boxes have steadily increased in screen size. The largest boost occurred over the last decade, keeping pace with our expanding waist lines and cargo-hauling capacities. Yet recent difficulties in the very high (and big) end of the market indicate that TV size may be reaching its practical limits—and those limits may be determined more by lack of space than lack of cash.

The rear-projection TVs that are so hot right now are flatter than CRT-based models, but they're getting closer and closer to taking up an entire wall of a room. Not only does this severely restrict your furnishing choices, but your room must be deep enough to allow comfortable views without the distortions that often occur when viewing large TVs from within a few meters. Suburban homeowners may be able to spare a large room for home entertainment, but most TV owners, especially outside the United States, live in more cramped surroundings.

All this came to mind last week when Intel cancelled plans to introduce the LCOS (liquid crystal on silicon) TV chip it announced in January, citing high R&D costs and limited projected sales. This retreat followed the October 5 news from Philips that it was pulling out of the LCOS TV business. Toshiba had dropped out of LCOS TV earlier this year.

LCOS competes in the HDTV rear-projection TV market with systems based on Texas Instruments' DLP (digital light processor) technology. LCD-based rear-projection TVs offer a cheaper alternative, but although improving, they still have trouble displaying true black. Like LCD, LCOS uses liquid crystals to modulate light; DLP, by contrast, uses tiny mirrors. Unlike LCD, LCOS is completely reflective, offering higher quality. LCOS's advantage over DLP is that it can incorporate even smaller, high-quality pixels to support higher resolutions. Intel's chip was designed to support true-HDTV two-megapixel resolution (1920 by 1080 pixels), whereas DLP focuses on the basic one megapixel HDTV (1280 by 768). Although there is no firm link between resolution and screen size, higher-resolution displays tend to be larger, and the Intel-based systems were

expected to play more in the 50-inch-plus range compared to the 40- to 50-inch range of most DLP systems.

The retreat from LCOS doesn't mean the promising technology is doomed, but Intel was seen as the force that might bring LCOS TV prices down below the $2,000 threshold—a development that is now on hold. A lot of the troubles with LCOS stem from the usual risks of cutting edge technology combined with the challenge of maintaining quality control when constructing huge panels of thousands of crystals. But the current LCOS hiatus has more to do with marketing than crystals. DLP was beating LCOS on the price/quality continuum in the hot 40- to 50-inch market. This motivated Intel to move to the high end where the company finally determined that there wasn't much of a market. Since the Intel-based systems were expected to lower the price of LCOS, however, the market problem may be less of price than of physical size. Market dynamics in consumer electronics are increasingly being pushed by consumer economies in Asia, where suburban tract homes are rare and 50-inch screens may be the maximum.

As globalization continues, it is difficult to compete by simply focusing on affluent Americans and their super-sized mentality. With populations continuing to rise in most areas of the world (including the United States), there's simply not a mass market in massive TVs. According to display-market analyst Stanford Resources (recently acquired by iSuppli), only 5 million out of 170 million worldwide units sold in 2003 were larger than 40 inches—a figure that's projected to rise only to 12 million out of 200 million units in 2007.

We're talking about America, of course, so TVs will keep getting bigger. But the market beyond 50 inches will remain a specialty luxury affair for some time to come—and not only due to price.

Ed Parsons

From: Scott Dennis

This is the lesson that was learned from the original invention of cable TV. When I worked for Ed Parsons he told me that before Thanksgiving day in 1948 he lived in Astoria, Oregon. He knew KING-TV Ch 5 in Seattle was testing their equipment. He hunted all around to find a place where he could place an antenna to receive it, and found one. He cabled it to his house. Then on T-Day, KING came on the air with regular programming. Neighbors came from far and wide to see it. Eventually his wife got tired of the traffic and asked him if he could do anything about it. So he cabled to the neighbors' houses!

He's about the only person in Cable TV who did not become rich from it. Quite a guy!

The one thing to stress is that he was motivated all along the process by his wife. She wanted TV so he did it. Then she wanted the crowds thinned out so he did it. And in the process invented an industry!

He went to a big awards dinner for Cable execs in 1987, in anticipation of the 40 year anniversary. But he didn't live to the 40th. Oh, and he was NOT a TV dealer - he owned a radio station.

Ed and some others did receiving tests in Portland of KING in '49 or '50 with the idea of rebroadcasting KING to the Portland market. It's unclear whether transmission tests were ever carried out. But the building they used to do the tests is next door to my house. It originally housed the 3rd FM station in Portland, which lasted about 2 years, and later housed a short lived UHF TV and a half dozen FM's over the years. I bought the building a couple of years ago and remodeled it into a lovely art modern residence. One of the Infinity Portland ACE's lives there now. It comes complete with a 33' triangular deck built on the foundation of the old tower, including the original base insulators!

There is someone else who first charged monthly for service, and he is sometimes mentioned, but it is clear that Ed did it first. His real name was Leroy. L.E. "Ed" Parsons. An amazing man!

A couple of other accomplishments: He set up the government's communications system in Egypt. He set up the military's communications system in Viet Nam. He was the first to receive a satellite transmission on the North Slope (they said the curvature of the earth would prevent it - but he did it and then came up with the theory of atmospheric refraction to explain it)

When he knew his health was failing he took me into his house and showed me where all his records and slides were. He had thousands of photos of places he'd been all over the world. He gave me a key to his house. But when the end came I didn't have the heart to intrude into his home and the family took it all and it is probably scattered to the wind now.

I worked for him in Fairbanks at KINQ-FM. We were the only radio station I've ever heard of to have its own cable TV channel. It showed a LIVE image of our banner hanging on the wall (you could see it move when the force-air heat came on) and the audio was from the station. It had both kinds of music: country AND western. And talk.

I could go on and on, but suffice to say that I feel extremely fortunate to have known him.

By the way, Ed was the first person to set up conditions in the US for culturing Roquefort cheese. Until he built the equipment it could only be done in France!

There is a lot available on the web. Just Google "Ed Parsons Astoria cable tv" for a start. He passed on in 1988.

From the Pen of Mendrala

By: Jim Mendrala

I thought you might be interested in hearing about a great event for industry professionals, the upcoming Digital Video Expo West 2004! It takes place December 8-10, 2004 at the Los Angeles Convention Center in Los Angeles, CA.

Digital Video Expo West 2004 has something for everyone. Enhance your skills by becoming an Apple Certified Pro. Gain a new understanding of all things digital video at the Conference. Screen new works at the DV Film Festival. Learn the ins and outs of new technologies demonstrated by industry-leading vendors. Explore state-of-art technologies on the show floor.

Register today and save hundreds of dollars in early-bird savings. Conference Packages are now available at discounted rates. The Expo Plus! Pass--which provides access to the show floor, vendor-sponsored sessions, and designated special events---is FREE if you pre-register.

Mark your calendar for Digital Video Expo West this December. For complete pricing and packaging details please visit:
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Registration is simple on the show Web site at:
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Don't miss this great opportunity!

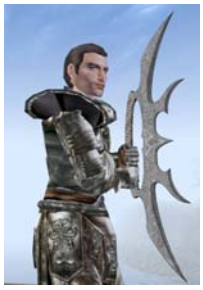
Digital Video Expo West 2004
December 8-10, 2004
Los Angeles Convention Center
Los Angeles, CA http://dvexpo.com

Parting Shots

By Larry Bloomfield

Since this is such a full edition and it's taken us two weeks too long to get it out, I'll share with you a true and cute story from a good friend of mine, Tim Hershiser and save my normal ranting for our next edition.

The trash was piling up in the Chief Engineer's office, so he asked the facilities guy why.



Turns out the non-English-speaking cleaning ladies won't go near that office because a threatening, demonic voice comes out of it at odd times. That's when he realizes his PC is on all night, and whenever e-mail arrives, a Klingon voice announces, "Captain! Incoming message!" "I changed my theme to something less vocal," the Chief said. "The facilities guy assured the janitorial staff that the cube had been dispossessed, and his office started getting cleaned again."

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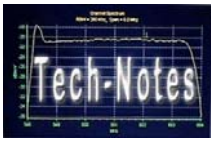

Thanks.