

<http://www.Tech-Notes.tv>

March 16, 2009

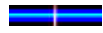
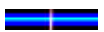
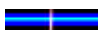


Tech-Note – 140

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

Index

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](#)  [The Road Show](#)
[Preserving Television History](#)  [News](#)  [They'll be missed](#)
[Features & Opinions](#)  [Order of the Iron Test Pattern](#)
[Information & Education](#)  [Parting Shots](#) [Subscriptions](#)

Editor's Comments

It's been two months now since I attended the Consumer Electronics Show (CES) at the Las Vegas Convention Center. If CES is any indication of what we can expect for attendance at the National Association of Broadcasters (NAB) Convention next month, things don't look all that good.

I've heard more excuses than you can possibly imagine from "the economy," through being shorthanded. There is never an acceptable excuse to miss an educational opportunity except for life or death circumstances. Both NAB and the International Broadcast Convention (IBC) in Amsterdam fall into this category as do monthly SBE, SMPTE, etc. meetings when the SBE, SMPTE meetings have programs. It is understandable not doing the European trip to IBC when an equivalent is available here in the good old USA. Having owned a broadcast facility and other kinds of communications businesses, I speak from personal experience when I say that the costs to an employer of having untrained or skilled personal is beyond calculation and in an industry that tends to follow Moore's law of technology changing as fast as it does, training and education is an ongoing process.

In the nearly twelve years since Jim Mendrala and I began Tech-Notes, we have always lauded the efforts of NAB and those companies who bring their latest technology to the NAB conventions. As I've said

many times in the past, there are only two places where a person can go and see nearly all the latest equipment, technology and services in one location: The NAB Convention currently held in Las Vegas and the IBC in Amsterdam. We have also said that for a facility not to send at least one technical member of its staff to either of these events is tantamount to shooting themselves in the foot and just plain STUPID management.

For anyone, including me, to say that our Taste of NAB is a good substitute for going to the big one in the desert would be an absolute false statement, but it is better than nothing.



There are a number of things that have happened since our last edition. Needless to say our government has once again succeeded in messing with our minds over the secession from analog television. The first big mistake in this whole debacle was in only addressing full power television stations and not the entire industry. The next big mistake was not specifying that all converter boxes must have pass through for those stations which will not be terminating analog television for some time as yet.

On February 27, 2009, the FCC announced the following totals for broadcast television stations licensed as of December 31, 2008:

UHF COMMERCIAL TV	796	
VHF COMMERCIAL TV	582	1,378
UHF EDUCATIONAL TV	252	
VHF EDUCATIONAL TV	129	<u>381</u>
TOTAL		1,759

The above listed 1,759 are the only stations REQUIRED to abandon analog transmission no later than June 12, 2009. There is NO DATE set for the **6,841** television stations listed below to discontinue analog television transmission.

CLASS A UHF STATIONS	460	
CLASS A VHF STATIONS	94	
TOTAL		554
UHF TRANSLATORS	2476	
VHF TRANSLATORS	1513	
TOTAL		3,989
UHF LOW POWER TV	1763	
VHF LOW POWER TV	535	
TOTAL		<u>2,298</u>
		6,841
TOTAL of ALL television transmitters in the US		8,600

In the URL http://en.wikipedia.org/wiki/Lists_of_television_stations_in_North_America, if you ignore the opening paragraphs, which is way out of date, the links to the various states will show some rather up to date information on a state-by-state basis of where we're all at today.

The next big mistake, in my opinion, are the three different dates set for the abandonment of analog television by all the full power stations: December 31, 2006, then February 17, 2009 and now June 12, 2009. One can only ask if the June date is real or will congress get a hair up their “you know what” and delay it again. It goes without saying that these delays have served to confuse more than help and one can also ask if congress isn’t trying to drive a nail into free over the air television as we know it?

Early in February, when it was announced that we’d have the delay for some stations until June, I wrote my congressman and two US senators the following (after the appropriate salutation):

I want to know why you have supported the extension in time for the cutoff of analog television.

In an economy that is headed for the toilet, this is costing Oregon Public Broadcasting well over \$100,000.00 in additional electrical bills to keep the old analog transmitters on the air: some of which are long beyond their time to be retired. That money could be used to help keep jobs at OPB. Now we’ll all have to sit through more “Beg-a-thons” to help cover these costs which I hold you and the rest of Congress responsible for.

What I am about to say about our Oregon commercial television stations is very applicable to all television stations here in our great United States.

Our commercial stations have been using a great deal of their inventory (advertising time) over the past year to educate the public about the transition that should be taking place on February 17th. It is my opinion that anyone who didn’t know about the secession of analog television on February 17th has been out of touch with reality or on Mars.

Now because of a Congress that (I believe) is out of touch with their constituents on this subject by extending this transition date to turn off analog, they have succeeded in totally confusing the viewing public by prolonging this event. Those who had no clue now will most likely not have a clue in June either.

What’s more, you – Congress – have placed the commercial stations in the position of having to use more of that valuable inventory time over the next four months to re-educating their viewers. I’m concerned about this as it will deplete the revenues these stations need to maintain and pay their highly trained staffs in all the disciplines it takes to run a TV station in an economy that doesn’t need more unemployed.

Should you disagree with my last statement, all I can say is that there is no school that you can go to that can train you to be a Senator or Congressman, but you sure as hell need a lot of training to keep a TV station on the air.

Since you chose NOT to respond to my previous e-mail on this topic, I would suspect you will not answer this one either, but as my Congressman, I want to know why you did what you did!

I don’t expect a “boilerplate” response from you. I want you to address this directly to me. Should you choose not to, you can plan on me making an appointment with you in one of your offices so you can answer me in person - I believe that is my right. (And then I signed it).

The only answer I’ve received was a form letter from my congressman filled with inaccuracies.



The Road Show - A Taste of NAB 2009



At this point in time, we have fifteen sponsors who have said that there is a better than fifty/fifty chance that they'd join us for the Taste of NAB 2009 tour. You can see who they are on our website: www.tech-notes.tv/2009/2009-Sponsors-DoorPrizes.htm along with those folks who have signed up to provide door prizes. Remember that we're still in the formation stages and there is little doubt that this page will fill up before we begin our trek the second week in May.

So far, we've had two companies who were with us last year that tell us because of the economy they won't make the trip this year. It would seem to me that the old expression "out of sight – out of mind" would certainly play a big role in the marketing plans of companies when the Taste of NAB Road Show has a proven track record of get our sponsor's message out to those who are interested in improving their technology/facilities. The Taste of NAB Road Show, unlike print media and/or the internet, can prove how many were exposed to their technology.

As most of you know, the Taste of NAB Road Show is an educational event. We do NOT sell anything – we simply inform. We have more than doubled our efforts to let would-be sponsors know of our abilities, but the "it's the economy" tune seems to be sung very loud and strongly these days.

The Taste of NAB was founded for one reason: To educate the broadcast community, including decision makers, about products/technology in a quick, effective and economical way. Last year we visited nearly 2000 broadcast technical people after NAB; people who didn't have the time or budget to go to the big one in Las Vegas. These broadcast technical people are the ones who either sign purchase orders for the kind of technology we bring with us or make the recommendations to those who do.

This year because station travel budgets have been cut even more, we expect to meet with significantly more of these people around the country during our 2009 Road Show tour. We have been asked to not only return to many of the locations we've presented to in the past seven years, but to new places who have come to realize the value of what we can bring to them: Information and Education about the latest technology in the broadcast industry.

At each presentation, we collect business cards from those in attendance; if they don't have one, we have blanks they can fill in with all their contact info so we have PROOF of who has been exposed to what we have with us. These business cards are used for the door prize drawings we have at each presentation. Last year we gave away over \$100,000.00 in door prizes.

In addition to door prizes, we help subsidize the refreshments at each presentation to the tune of up to \$250.00 at each location. At some locations, we have local sponsorship of the refreshments. In any event, not only do we feed the technical appetites of those who attend, but also their physical appetites as well.

The Taste of NAB 2009 Road Show is a very positive ray of marketing hope in an otherwise deteriorating economy. Last year along we traveled nearly twenty-one thousand miles to make seventy-five

presentations. We have received over 800 e-mails thanking us and asking us to return – these are all posted, unedited, on our website. http://www.tech-notes.tv/Taste_of_NAB.html.

As to the return on investment: Our sponsors tell us that it's way beyond their wildest expectations. There is only one logical conclusion: NO other technical Road Show has ever come close to producing the results we get and judging from the e-mail we've received over the past seven years, it's a two way street with those who have attended.



FDA Approves Depressant Drug For The Annoyingly Cheerful

If you are having too good a time and for those who are in need of a reality check, check out this video on YouTube. <http://www.youtube.com/watch?v=jd4tugPM83c>



NEW FCC COMPUTER TOOL PREDICTS DTV RECEPTION

The FCC has quietly released a new computer tool to predict the strengths of DTV signals at arbitrary street addresses. The program appears to consider both the curvature of the earth and terrain obstructions and may be extremely valuable in helping your viewers. Technical notes follow:

- Once an address is entered, several seconds may be required for the results to appear.
- The "red teardrop" depicting the location may be dragged to another location for new calculations.
- The program accepts geographic coordinate input in decimal degrees, but be sure to enter a minus sign before the longitude. For example: 33.807049, -117.125244.

www.fcc.gov/mb/engineering/maps/



Microwave Fading

One of the engineers mentioned this in passing at our sales meeting yesterday. Thought you all would get a kick out of it if you haven't seen it already.

<http://www.youtube.com/watch?v=Mdm12KONMBA>



World TV Standards

For anyone that's interested, here's a link for TV standards used throughout the world:

<http://www.kropla.com/tv.htm>

Julius Genachowski Nominated as Next FCC Chairman

President Barack Obama has nominated Julius Genachowski to be the next Chairman of the FCC.



On Tuesday, March 3, President Barack Obama nominated Julius Genachowski as FCC Chairman. Genachowski, 46, is a technology executive and a former classmate of Obama's from Harvard Law School. Upon Senate confirmation, Genachowski will replace Acting FCC Chairman Michael Copps; Copps took over the Commission on January 22, 2009, two days after then-Chairman Kevin Martin resigned. Genachowski has been widely praised by industry executives and consumer-activist groups -- two groups often at odds -- for his wide-ranging experience and intimate knowledge of technology issues.



"I can think of no one better than Julius Genachowski to serve as chairman of the Federal Communications Commission," said President Obama. "He will bring to the job diverse and unparalleled experience in communications and technology, with two decades of accomplishment in the private sector and public service. I know him as the son of immigrants who carries a deep appreciation for this country and the American dream; and as the proud father of three children working with his wife Rachel to be responsible parents in this digital age."

The Wall Street Journal has speculated that a number of Republicans -- including FCC Deputy General Counsel Ajit Pai -- have been mentioned as a possible replacement for the seat left vacant by Republican Deborah Taylor Tate when she left the Commission in January. "On the Democratic side, speculation is growing that FCC Commissioner Jonathan Adelstein may not be renominated for the seat he currently holds. South Carolina public utilities commission official Mignon Clyburn (daughter of [Democrat Representative] Jim Clyburn) has been most often mentioned by people close to the Obama team as a candidate for that seat," the Journal reported. "

Acting Chairman Copps said President Obama "made an excellent choice in announcing his intent to nominate Julius Genachowski to be the next Chairman of the FCC. Julius has the knowledge, experience and dedication to lead this Agency forward as we tackle the many challenges confronting the country -- and the Commission. I look forward to the prospect of working with him on a communications agenda focused on serving consumers and the public interest. He will find here a talented and energized team of public servants committed to precisely this goal. I wish him a successful Senate confirmation."

Genachowski's Background

After graduating from law school, Genachowski clerked for federal judge Abner Mikva; he also clerked for Supreme Court Justice David Souter. Genachowski later served as chief counsel to Reed Hundt, chairman of the FCC from 1993-1997. After leaving the FCC, Genachowski was a senior executive at

IAC/InterActiveCorp, Barry Diller's e-commerce and Media Company. He went on to found an investment and advisory firm for digital media companies and co-founded the country's first commercial "green" bank. According to Obama's campaign Web site, Genachowski raised at least \$500,000 for Obama during the presidential election campaign.

Early in the Obama presidential campaign, Genachowski urged then-candidate Obama to capitalize on the organizing power of the Internet. The New York Times called Genachowski "a prolific fund-raiser and chairman of the campaign's group of technology-policy advisers, who produced a report advocating an open Internet, diversity in media ownership and a nationwide wireless system for emergency personnel." The Washington Post, which described Genachowski a "local venture capitalist," credited him with "spearheading Obama's online campaign strategy, which used social networking and other tools to spread Obama's campaign message and raise record campaign contributions."

Genachowski explained in his Obama campaign blog that he "was fortunate to chair the group that advised Senator Obama and the [Presidential] campaign on the tech & innovation plan, a large and hardworking group that generated terrific ideas, rooted in the great work that the Senator and his strong Senate staff have been doing in this area for quite some time."

From the broadcast side of things, comments abound. One such comment was posted on a Radio Broadcast e-mail list: "Actually, this guy has some business experience instead of being a Beltway insider and a patronage hack like Martin. What's more interesting is he has NOT been of the mold like many chairs before him in that he doesn't have a LOT of telcom experience, and therefore doesn't have any sacred cows in telcom land to protect.

"I also like the fact he clerked for two Supreme Court justices. Which gives him an enormous respect for what can happen if the FCC deviates from their codified mission under the Comm Acts (as well as others) and their own policies and ends up facing the Appellate Court (such as in White Spaces).

"It will be refreshing to see if he directs common sense into the White Spaces matter as well as Clarity Wireless (Trucker TV) proceeding. Both of which are terrible spectrum sharing prospects for broadcast."



Random Notes on the February 17th Partial Shutdown of Analog

From: Tim Hershiser [thershiser \(at\) myfoxeugene.com](mailto:thershiser@myfoxeugene.com)
(Ed Note: *Tim Hershiser is Chief Engineer of KLSR/KEVU in Eugene, OR*)

Here is a quick summary:

Some of the converter boxes are scanning VHF OK but not UHF. The viewer gets 9-1 OK but nothing else. I tell them to manually input 17, 31, and 25 then they get everyone. (These are the digital stations in Eugene, OR)

Devices utilizing Tribune Entertainment data (OTA TIVO's, computers) were getting wrong data and not working on some channels.

Many people needed generic help with converter boxes.

We lost some viewers south of town because we have directional antennas aimed north. Previously they were able to pick up signal from the back of 34's directional antenna because that was the back of 3 million watts.

We had a similar problem with viewers in Salem. The analog 3 million watts burned right through Vineyard Mountain but the digital doesn't. I believe there have been 5 people that were getting a marginal 34 signal who are not in our digital coverage area.

There were many viewers that I had to recommend that they replace their rabbit ears with outside antennas or amplified indoor antennas.

I received several calls from people who did not get our analog signal and thought they would now get our digital signal.



The following notes are from:
Dan Stoe, Chief Engineer of KVAL-TV in Eugene, OR [stoe \(at\) kval.com](mailto:stoe@kval.com)

So, it has been a whole week without analog for you both (KEZI & KLSR). As Dr. Phil would say: How's that working for you? I'm guessing KEZI has improved their coverage area, although I still have a UHF only antenna hooked up and actually lost ground until I get up on the roof and hook up the other antenna.

We have received a mix of calls. Some thanking us for staying analog, some wondering what happened to KEZI and KLSR; most just the normal confused viewer that can't figure out where to plug in the antenna or can't figure out why rabbit ears don't work from insert just about any location.



The following notes are from:
Dennis Hunt, Chief Engineer of KEZI-TV in Eugene, OR [drhunt \(at\) cmc.net](mailto:drhunt@cmc.net)

When I got to Reedsport, (OR), KEZI was already delivering a high quality DTV signal! Much to my surprise, the translator was passing the signal straight on through with an indicated power of 4 watts! It is a late model (2000 or so) TTC TV-1 and TV-10, If I recall the models correctly. We got a report today from a person in Reedsport who scanned and got a perfect picture to his surprise.

Unfortunately, since I don't have a flashcut authorization I had to return it to analog service! I have 27 dB SNR at the input from the antenna.

(Editor's Note: In response to seeing the letter sent to our Oregon Senators and Congressman – on page 3, Hunt made the following comment)

The money wasted on this delay could have been better used on helping the rural translator groups like ours to make the transition. They could have given converters and hired installers for the remaining holdouts and still saved money. Oh, well, its not their checkbook, is it?



Another Message The Transition Should Be Telling

From: [dan.grimes \(at\) unlv.edu](mailto:dan.grimes@unlv.edu)

There is another message that needs to be told in the DTV Transition: re-scan for channels regularly, especially for this first year. There are a number of new channels here in Las Vegas that are popping up using DTV-LP and there are several NTSC channels (especially LPTV) that are not digital yet and might not be for some time. So this digital transition will not be a flash transition.

I have much anecdotal evidence that suggests people are getting converter boxes but only scan it the first time they get it. Some folks, including myself, are surprised each time a scan is performed and a new frequencies shows up, often with multiple channels. But there are several people I know that are only getting 4 or 5 frequencies because they don't realize there are more stations switching. And there will be more throughout the year.

And there are several I know that have a DTV converter but are still only using analog because they still get more channels on the analog, waiting for the day when all goes digital.

Overall, I think the message now should not be that there is a transition but how the transition will happen (over time) and how to cope with it!

Dan



From San Diego

By Gary Stigall (from SBE Chapter 36 Newsletter)

Sunday, 01 March 2009 San Diego was among the largest TV markets in the U.S. to have many of its major TV stations transition to digital only the evening of February 17. Major station groups backed out of their plans to transition early when it fell out of political favor. Locally, KFMB-DT needed to get off their low power provisional DTV channel. McGraw-Hill and Tribune surely wanted the electric meter to stop spinning so fast supporting two transmitters in an adverse economy at KGTV and KSWB, respectively.

The vast majority of the San Diego County estimated 78,000 households with over-the-air TVs made the transition without trouble. There were hundreds who needed help.

Speaking to dozens of viewers and other chief engineers in town, here's what I learned:

Shutting Down the Analog Transmitters in Two Batches May Not Have Been Such a Bad Idea - Unprepared viewers woke up on February 18 with fewer TV stations, but they were able to receive some, and were motivated to then upgrade their systems to receive all the stations. No one was left without a source of TV news.

The "Night Light" Worked - KSWB reported fewer calls after keeping a repeating 30 minute instructional video about the DTV transition running on their analog channel 69 station for a week.

It's About the Antenna - With at least four transmitter sites and rough terrain, it takes a skilled engineer to design and build a proper home antenna system in this market. The vast majority of callers were trying to receive all local English-speaking TV stations with a single indoor "rabbit ears and UHF loop" style antenna. With the few exceptions of people located in the center of the city in wood-framed homes using converters or receivers with the latest generation, highly equalization-adapting chipsets—receiving TV this way doesn't work. A weak signal tolerated before became a blank screen at the bottom of the digital cliff.

A Few Brave Souls Want Information on Real Antenna Systems – A handful of callers wanted advanced information on fringe area reception. With only a couple of antennas capable of sufficient front-to-back ratios to eliminate co-channel interference from Los Angeles, this information means the difference between receiving all stations and receiving a few.

Not Ready for VHF - Many viewers had adapted to the UHF-only pre-transition market with their bow-tie array antennas, only to find that they now had to replace those antennas to receive new DTV stations on channels 8 and 10. Many viewers were told that the best system is a combination of high-band VHF antenna aimed permanently at Mt. Soledad and a UHF antenna aimed south toward Mt. San Miguel and Mt. San Antonio, but few wanted to actually go to the trouble of doing so.

Where Did the Converters Go? - Inventories of digital converters were spotty during the week leading up to the transition. Many stores appeared to have run out of converters for fear of having excess inventory. Anecdotal evidence told us that stores south of downtown fared worse, with large numbers of converters perhaps being sold to Mexican citizens for use in Tijuana, where many people are bilingual, they can receive large numbers of digital stations, and Asian imports carry a burdensome duty.

The Channel Master Converter Got Good Marks - The DigitalStream boxes got hot enough to make you not only wonder about their electrical consumption, but about their safety without a fire extinguisher nearby. The Zenith box picked up an extra dozen stations from LA on my old log-periodic, but it didn't have an S-video output. The Channel Master could be had at Fry's sometimes for a 10-spot with a government card, but it had the S-video output. Andrew Lombard at KGTV said it was his favorite (although it doesn't have analog passthrough --ed).

Scan and Rescan, Then Scan Again - Viewers were told to rescan on February 18 for digital versions of channels 8 and 10. But that wasn't enough. If a viewer had an antenna on a rotator, they had to perform a complete "first birthday" style scan. Then they had to scan in ADD mode for UHF stations on Mt. San Miguel, then, depending on location, might have to scan a third time to receive English language XETV in Tijuana. Some TVs behave differently, so rescanning could delete previously found stations. Viewers with those TVs had to be instructed on how to restrict their scans to a set of physical channels while ADDing.

What Do You Mean Channel 6 is really 23? – Related to the previous item, viewers needed to know the physical channel numbers in order to properly scan channels and make sure they have the right antenna.

So Tell Me Once Again How to Wire My Old VCR to the Converter? – As consumers tried to adapt their older technology, they felt left behind when trying to integrate the new converters to

their trusty recorders. Conducting automatic recordings with unmanned channel changes is pretty much impossible.

I Give Up – Cable, fiber, and satellite providers ran a heavy ad campaign to promote the simplicity and reliability of reception using their systems, capturing perhaps 6,000 exasperated OTA viewers. Many subscribed to the lowest tier of service, but providers were glad to have them.

Lifeline Rates are Not Published - Viewers calling TV stations were not aware that they could get all local TV stations, in HD, using the lowest tiered rates on cable.

Some Stations Really Put Out - KGTV collected excess government converter cards from their viewers and redistributed them to viewers who had requested too late. They also had instruction materials from each of the popular makes of converters and TVs in order to help people with rescanning. KFMB Stations Director of Engineering Rich Lochmann and yours truly at XETV went on the air to explain rescanning. KSWB produced the nightlight video.



ANALOG SWITCHOFF GOES UNNOTICED

Total DTV Calls to 1-888-CALLFCC as of February 19
Numbers may be adjusted

Date	Call Volume
Friday, Feb. 13	11,819
Saturday, Feb. 14	8,178
Sunday, Feb. 15	7,324
Monday, Feb. 16	20,673
Tuesday, Feb. 17	27,764
Wednesday, Feb. 18	25,320
Thursday, Feb. 19	17,920

From: Harold Hallikainen [harold \(at\)hallikainen.com](mailto:harold(at)hallikainen.com)
As seen on the Broadcast List
[broadcast \(at\) radiolists.net](mailto:broadcast(at)radiolists.net)

ANALOG SWITCHOFF GOES UNNOTICED
[SOURCE: Financial Times, AUTHOR: Thomas W. Hazlett]

When, in 1986, cell-phone makers and public safety agencies asked the Federal Communications Commission for a shot at using scores of idle TV channels, politically powerful TV stations quashed the idea. They hurriedly hatched a reason: extra frequencies had to be reserved for "advanced television."

Percentage of DTV Calls to 1-888-CALLFCC by State

From 2/13 to 2/19

State	Percentage
CA	11.55%
TX	7.62%
FL	5.66%
IL	5.44%
NY	5.39%
WI	3.97%
OH	3.74%
PA	3.30%
IA	3.19%
RI	3.14%
MI	2.89%
GA	2.69%
TN	2.64%
NC	2.50%
AZ	2.42%
IN	2.38%
OK	2.21%
VA	2.21%
KS	1.72%
LA	1.65%
MD	1.65%
SC	1.61%
MA	1.56%
MO	1.55%
MS	1.49%
AL	1.42%

State	Percentage
NE	1.41%
NJ	1.40%
NV	1.35%
MN	1.32%
AR	1.09%
WA	0.84%
OR	0.77%
ME	0.76%
WV	0.72%
CO	0.68%
CT	0.64%
KY	0.61%
VT	0.41%
UT	0.39%
ID	0.34%
NM	0.34%
DC	0.28%
ND	0.22%
MT	0.20%
DE	0.15%
SD	0.15%
HI	0.10%
WY	0.10%
NH	0.08%
AK	0.04%

Total	100.00%
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America, then reeling from Japan's emergence as a consumer electronics powerhouse, needed to develop its own cool video application and dominate the world. By the time the US made the (partial) switch to

digital (only) television just last month, "free TV" was already dead. One hundred million households now pay \$600 or so per year to avoid it, subscribing to cable or satellite. Well over 90 per cent of TV viewing takes place in households opting out of broadcast delivery. And for a very small additional investment - no more than \$3bn - every last rabbit-eared home in America could join them. Yet, the US is subsidizing off-air receivers; \$1.5bn has been allotted for digital set-top converters (two \$40 vouchers per family), and the Obama "stimulus" pumps in \$650m more.

This is not merely money down the drain. In extending life-support to DTV signals that hog hugely valuable frequencies, consumers lose hundreds of billions worth of wireless service. The bandwidth available to iPhones, Blackberrys and GPhones and other emerging technologies would double were TV air waves to accommodate mobile apps as requested in 1985.

<http://benton.org/node/22730>



FCC, Broadcasters Relieved Over Early Shutoffs

From: Albert E. Manfredi [albert.e.manfredi \(at\) boeing.com](mailto:albert.e.manfredi@boeing.com)
<http://www.tvtechnology.com/article/74760>

FCC, Broadcasters Relieved Over Early Shutoffs

Broadcasters and regulators breathed a sigh of relief this week as the first wave of mass analog shutoffs went off without any major glitches.

A total of 421 broadcast stations made their final analog signoff on Tuesday, Feb. 17, which until recently, was the scheduled deadline of the DTV transition. They joined an additional 220 that had already terminated analog signals. As of Feb. 18, less than two-thirds of U.S. broadcast stations are still broadcasting analog signals; a number of them will shut off between now and June 12, the final date of the analog shutoff, approved by Congress earlier this month.

The chaos that was predicted by some never materialized. According to the NAB, call centers set up to handle viewer inquiries were able to handle the response. "The volume of viewer calls received following the transition paled in comparison to the 12.4 million over the air only households that were affected in markets," said Jonathan Collegio, vice president for Digital Television Transition for NAB, who added that the information gleaned from viewer response to Tuesday's mass shutdown "will help prepare remaining viewers."

Figures released by the FCC this week showed that calls into the FCC's 1-800-CALLFCC hotline began to increase late last week. Almost 12,000 calls were handled on Friday, Feb. 13; the peak occurred on Tuesday, when the center responded to approximately 28,000 calls. The most common problem (32 percent of all calls), came from consumers who had difficulty setting up their converter boxes followed by consumers who complained they could not receive area broadcast signals.

FCC Acting Chairman Michael Copps attributed the success to Congress' vote to approve extending the DTV transition deadline to June 12 two weeks ago, as well as stepped up consumer education efforts and the commission's decision to maintain at least one analog signal in at least every market.

"Thanks to the movement of the deadline, we did not have anything like the extent of disruption we would have experienced had every station in the country gone completely digital on Tuesday," he said. "In

fact, we tried to ensure that in every market in America, at least one stations continues to broadcast an analog signal. That made a huge difference in smoothing the way."



Faulty converter boxes

John L. Poray, CAE [jporay \(at\) sbe.org](mailto:jporay@sbe.org)
Executive Director, Society of Broadcast Engineers

My apologies if this is a subject that has already been addressed with this forum. I had a call today from a member, Keith Stuhlmann, DOE at WINK-TV in Ft. Myers, Fla. about the deluge of calls his station took the first few weeks after they cut off their analog signal on February 17. Their digital assigned channel is 9, and it seems that many of the Fanai manufactured converter boxes under the Magnavox and Philips brands have faulty VHF tuners.

Keith asks if other stations have had the same problem. The boxes were sold by Wal-Mart (possibly others). In their local area, Wal-mart appears now to have put RCA branded converter boxes on the shelves and discontinued selling the Magnavox converters. You may email Keith directly at [keith.stuhlmann \(at\) winktv.com](mailto:keith.stuhlmann@winktv.com) if you would like a response to reach him.

Thanks, John Poray



More on Converter Boxes

Name withheld on request

I hooked a Magnavox at my sister's house in the (San Francisco) Bay Area last year, and her Magnavox tuned in DT channel 12 just fine. The San Jose NBC O&O, KNTV, has their analog on channel 11. They moved to Mt. San Bruno, so they do better on their Analog channel 11 than they used to from their San Jose location. Their digital channel 12 is fine from there too.

I did notice that if the antenna is receiving pointed through nearby trees that some UHF stations pixilate a lot if it gets real windy. The analog signals just go weak to strong a lot. She put up an outdoor antenna, and all is well now.

I think only two stations will be VHF-DT -- KGO & KNTV. KQED is staying on UHF. Someone told me that the KQED folks weren't too happy about having to vacate channel 9. The PBS station in Sacramento (KVIE-TV Channel6) is on DT-9. So is the PBS station in Redding (KIXE-TV). In the old days, I don't think the FCC would have considered having co-channels that close. I don't think there's any terrain shielding, is there?

Pete (ac7f)



4 more months?

Adrienne Abbott [weathertop \(at\) charter.net](mailto:weathertop@charter.net)

When Reno station KOLO-TV did an early turn off of their analog signal, the event was well-documented by station staff as well as the NBC and CBS affiliates in the market. The turn-off was scheduled for the

mid-day (11:00) newscast, with live coverage of the GM pushing the button that replaced the normal programming on the analog signal with a slate giving viewers instructions on what to do to receive the digital signal. The slate ran until midnight and then the analog signal went silent.

The other stations with news staff covered the end of analog broadcasting on KOLO-TV as a news event and everyone agreed that the early turn-off probably benefited the entire market. In addition, KOLO-TV's early turn-off coincided with a series of market-wide "soft tests" so the Nevada Broadcasters Association had set up a call center to help viewers who had questions about the loss of KOLO-TV's signal as well as the digital tests on the other stations.

Overall, there were very few calls to the call center and to KOLO-TV, and we've been handling those one at a time, getting everyone up to speed on the transition. The prevailing opinion is that having a station do an early turn-off will probably benefited everyone in the market, stations and as well as viewers, and the market is better prepared for the end of analog broadcasting ends, whether that happens this month or in June.

Adrienne



DTV Reception Problem Article

Carl Sundberg [carlesundberg \(at\) yahoo.com](mailto:carlesundberg@yahoo.com)

As the acting Chief of an NBC affiliate (KMTR, Eugene, OR), I get the calls when listeners have problems making their DTV receivers and converter boxes work. Over time, most of the problems I have found were related to ATSC's greatest weakness, Multipath.

Since I thought high school broadcast engineering for 28 years, I found that anyone can understand even the most complex concepts if it was put in a way they could relate. Toward that end, I have written a simple explanation of why DTV is difficult for some to receive it well and reliably. I have found that when people understand the challenge, they find ways to cope with it better and have more success.

In the past, I have tried to attach articles to on-line forums with no success, so this time I am only including a download link to the "Word" document. Click on it and you should be able to download it. If you wish to use it on a web page, please do so and it is OK to delete the author information. Getting the information out is what's important.

The link is: [http://www.2xpi.org/downloads/Understanding Digital TV Reception Problems.doc](http://www.2xpi.org/downloads/Understanding_Digital_TV_Reception_Problems.doc)

I put it on a personal web site that I use once in a while to babble on about weird physics phenomena that I observe from time to time.

Carl Sundberg
Eugene, OR



Pro-Bel and Snell & Wilcox Announce Merger

Combination of two industry leaders creates global force in broadcasting technology

According to a joint press release, on March 6, 2009, Pro-Bel and Snell & Wilcox announced the merger of their businesses, and the creation of a new joint company. The deal, which combines the strengths of two companies, creates what may come to be a formidable competitor in the digital media sector. The combined company has two thousand active customers in more than 100 countries, a comprehensive portfolio of products, and a world-wide team of sales and support personnel.

“For more than thirty years, both Pro-Bel and Snell & Wilcox have offered compelling best of- breed solutions that help to solve real-world customer issues,” said Graham Pitman, CEO of Pro-Bel. “During this time the two companies have developed highly complementary product ranges with very little overlap; well-deserved reputations for innovation, product quality and reliability; and a joint commitment to excellence in customer service. Through this merger, the new combined company will build on this strong foundation to create one of the industry's great companies.”

“Our industry is in a period of dynamic transition,” said Simon Derry, CEO of Snell & Wilcox. “Traditional business models are being rewritten as we embrace the exciting opportunities in the multi-definition, multi-platform world of 21st Century digital media. By joining forces we have created a company that has the talent, technology and resources to meet the evolving needs of our existing customers, while simultaneously taking advantage of new opportunities as they emerge.”



Miranda Snaps Up NVision For \$40 million

Deal consolidates master-control suppliers

According to an article by Glen Dickson in Broadcasting & Cable, Miranda Technologies is acquiring Grass Valley, Calif.-based routing specialist NVision for \$40 million.

NVision has enjoyed several years of growth from sales of its 3-gigabit-capable routers, while Miranda has garnered significant market share with its Densite infrastructure gear and Kaleido-X multi-image display processors.

“The proposed acquisition of NVision will strengthen our overall product offering and competitive stance,” said Strath Goodship, Miranda’s President and Chief Executive Officer, in a statement. “They are a natural fit with our branding, interfacing and multiviewer product lines and will also bring considerable technical expertise. Furthermore, the business combination confirms Miranda’s position as an industry consolidator and is in line with our growth strategy of focusing on accretive acquisitions. We believe that it is a productive use of our cash, which totalled over CDN\$86 million as at September 30, 2008 and believe it will benefit our customers, employees and shareholders.”

Sky moves towards 3D broadcasts

Sky says it has successfully tested the delivery of 3D programming to a domestic television via a high-definition set-top box. Sky has been filming a number of events using 3D cameras over recent months. Such broadcasts would require the use of 3D televisions, not yet available in UK stores, and viewers would need to wear 3D polarising glasses. Earlier this year BBC engineers broadcast a high profile sporting event in 3D to an audience at a theatre in London.

Sky says it has gone further by showing that 3D could be delivered into homes, straight to its Sky+HD set-top box. Sky stresses this is not making a product launch, but a technology demonstration. "We have shown it is a technical reality. Now we have to find a way to bring it to viewers," said Sky's director of strategic product development, Gerry O'Sullivan,

The company showed clips from programs it had filmed in 3D, including a boxing match, a rugby union international and an episode of Gladiators. O'Sullivan said major TV manufacturers were beginning to look at building 3D sets and at January's Consumer Electronics Show, in Las Vegas, a number of prototypes are expected to be on display. He explained that for broadcasters, the move to 3D would not be anything like as expensive as the investment the industry had made in high-definition television. "It's not hugely costly," he explained, "because it piggybacks on the investment in HD."



Skype Being Used for More Live Shots

Internet Videoconferencing an Economical Alternative to Live Trucks

In an article by David F. Carr in the March 4, 2009 edition of *Broadcasting & Cable*, internet videoconferencing using Skype is quickly becoming a fast-and-cheap alternative for setting up live shots from breaking news scenes, or at times and places where arranging for a live shot using satellite or microwave truck might be too costly.

They site WGRS-TV Channel 2, Buffalo's NBC affiliate, recently used Skype as part of its coverage of a Continental Airlines commuter plane crash into a house near its city airport. "The first reporters close enough to see the smoke and fire of the crash behind police barricades used a simple webcam and a laptop equipped with a cellular modem to send those images," said News Director Jeff Woodard.

Reports were that that "although the picture may have been jittery, it allowed his station to get the first live images of the crash scene on the air, while competitors were carrying more polished shots from their live trucks – but from miles away."

There is little doubt that getting news on the air first has always been the goal of most stations that still cover news events. Development of the Telecopter, as chronicled in an earlier edition of *Tech-Notes* certainly illustrates this point. It only takes an innovative technical department and news team to come up with easier and better ways of getting viewers to the scene of braking news.



NTIA Gets Access To DTV Funds; Coupons to Flow Again

In an article by John Eggerton in Broadcasting & Cable on 3/4/09

The Office of Management and Budget, the National Telecommunications & Information Administration now has access to funding to help unclog the DTV-to-analog converter box coupon program.

"We apportioned these funds earlier this week; coupons will start being received next week," confirmed an OMB official.

The \$40 coupons, up to two per household, allow analog over-the-air TV's to display a digital signal. Over a third of TV stations have now gone all digital after more than 400 pulled the plug on the original DTV hard date of Feb. 17.

The Obama administration set aside \$650 million in the economic stimulus package to be used primarily to allow NTIA to start sending out converter box coupons to fill over four million requests on its waiting list. That list was created after NTIA ran up against a funding ceiling in early January. Another \$90 million is for DTV education and FCC expenses associated with educating consumers about and administering the move of the hard date. Acting FCC Chairman Michael Copps had said the commission had enough to handle the initial Feb. 17, but not enough for the intervening months until June 12, the new hard date.

It was NTIA's much-publicized waiting list that helped prompt then President-elect Barack Obama to call for moving the DTV hard date from Feb. 17 to June 12. Republicans had countered that simply fixing the accounting problem rather than allocating more money could have sufficed.

NTIA has said it will take two-to-three weeks to clear up the backlog of requests, but that if there is a rush on requests that create another backlog, it will give priority to households that rely on over-the-air analog TV service. The bill that moved the hard date also allowed everyone whose coupons had expired to reapply for them, irrespective of the reason for the expiration or whether they were from an analog-only home or one that was getting TV from cable or satellite.



It was a great HPA Technology Retreat!

From: Mark Schubin [TVMark \(at\) earthlink.net](mailto:TVMark@earthlink.net)

Here's some of the press coverage you might have missed. But, as Adam Wilt wrote, "trust me: if you're into this sort of thing, you gotta be there":

www.fxguide.com/article526.html

http://provideocoalition.com/index.php/awilt/story/hpa_technology_retreat_2009/

<http://sportsvideo.org/blogs/hpa/>

www.televisionbroadcast.com/article/74800

www.televisionbroadcast.com/article/74816

www.studiodaily.com/filmandvideo/tools/tech/10540.html

<http://ivideoserver.blogspot.com/2009/02/hollywood-post-alliance-tech-retreat.html>

TTFN,
Mark



3-D VIDEO CHANGES THE CONSUMER CONTENT EXPERIENCE

3-D Makes for a Better Movie Experience for Many Consumers

The more experience people have with 3-D technology, the more interested they are in having more 3-D options, according to a new joint study from the Consumer Electronics Association (CEA)[®] and the Entertainment and Technology Center at the University of Southern California. The study, 3-D TV: Where Are We Now and Where Are Consumers also showed that 3-D technology is positioned to become a major force in future in-home entertainment.

As with many successful technologies, such as HDTV, interest in 3-D increases as consumers experience it first-hand. In the past 12 months, nearly 41 million U.S. adults report having seen a 3-D movie in theaters. Of those, nearly forty percent say they would prefer to watch a movie in 3-D than that same movie in 2-D. That's compared to just 23 percent who have not seen a 3-D movie in the past 12 months.

“When it comes to current 3-D technology, seeing truly is believing,” said Shawn DuBravac, CEA’s economist and director of research. “Today’s 3-D offerings are changing the way consumers view video content, not unlike the early days of high-definition television, which redefined TV as we know it today.”

The study also found that today’s 3-D technology is positioned to move into the home and is becoming a major purchasing factor of TV sets. Sixteen percent of consumers are interested in watching 3-D movies or television shows in their home, while 14 percent are interested in playing 3-D video games. All told, more than 26 million households are interested in having a 3-D content experience in their own home. More than half of U.S. adults said having to wear special glasses or hold their heads still while watching a 3-D TV would have no impact on them purchasing a 3-D set for their home. New 3-D display technology that would require no special glasses was unveiled at the 2009 International CES, produced by CEA.

Another driver for purchasing a 3-D capable set is content. Nearly 30 percent of U.S. adults said having access to 3-D content through cable, satellite, fiber-optics or over-the-air broadcasts would positively impact their decision to buy a 3-D capable TV.

“Movie studios and broadcasters are experimenting with 3-D and continue to search for ways to bring the technology into consumers’ living rooms,” said David Wertheimer, CEO and executive director of the Entertainment and Technology Center at USC. “In the past few weeks alone, we’ve seen college football’s national championship game, multiple Super Bowl commercials and an hour-long TV show, all broadcast in 3-D. Interest in 3-D is growing, and consumers and content providers are both interested in seeing 3-D migrate into the home.”

The study also found that consumers were willing to pay more for a 3-D experience. Nearly half indicated they were willing to spend more for a television capable of displaying 3-D content. In fact, 15 percent of consumers said they would spend roughly 25 percent for such a TV. The parallels between 3-D and other successful technologies like HDTV suggest great potential for 3-D in the home.

The 3-D TV: Where Are We Now and Where Are Consumers study (February 2009) was fielded to a national telephone survey of 1,002 U.S. adults from December 18 through December 23, 2008. It was designed and formulated in conjunction CEA Market Research.

About the Entertainment Technology Center @ USC: The Entertainment Technology Center @ USC, founded in 1993 with the help of George Lucas, is a non-profit organization within USC’s School of Cinematic Arts. The ETC brings together the top entertainment, technology and consumer electronics

companies to evaluate what consumers really want, which is then translated to the companies that make technology products. The ETC strives to show how technology impacts the next generation consumer, which will improve the consumer experience and will uncover new revenue streams for entertainment-related products. Current ETC sponsor participants include; Disney, Sony Pictures Entertainment, Twentieth Century Fox, Viacom/Paramount, Warner Bros., along with Alcatel-Lucent, LG Electronics, Inc., Cisco, Deluxe Entertainment Services Group, Inc., Lucasfilm Ltd, Sharp, TATA Consultancy Services, Thomson and Volkswagen of America.

For more information, email: info@etcenter.org.



SELLMEYER & DAVIS WIN NAB ENGINEERING ACHIEVEMENT AWARDS



Each year the NAB presents its Radio and Television Engineering Achievement Awards at the NAB Show. The awards, first established in 1959, are given to individuals for their significant contributions that have advanced the state of the art of broadcast engineering.

This year's winners, Jack Sellmeyer (radio) and Sterling Davis (television), will be honored at the Technology Luncheon on April 22 in the Barron Room of the Las Vegas Hilton.



NBC, CBS Prep Originals for Online

By [Daisy Whitney](#)

Even though NBC has been wracked by huge layoffs and a tanking economy, the network's digital division will start shooting a pilot this week for an online late-night talk show, one of nine planned Web shows for 2009.

And NBC isn't the only network pursuing Web originals for the new year; CBS also is gearing up to launch original Web projects in 2009.

NBC is developing four Web shows for next year with advertisers already on board, and will pitch another five digital series to marketers starting in January. That five-pack includes the online late-night talk show, which will be hosted by a woman and targeted to female viewers.

Meanwhile, CBS has at least two Web originals in the hopper for 2009, including a Web companion series for the midseason replacement show "Harper's Island."

At first blush, an aggressive Web-original strategy might seem foolish given the contracting ad market and broader concerns about the long-term health of traditional media companies. But the focus on Web originals at CBS and NBC is rooted in what has become a profitable ad format for Web video—brand integration. Many advertisers are eager to back branded Web shows because ads that are baked into the content are DVR-proof.

Also, Web shows are faster and easier to produce than on-air programs, which lets programmers and marketers make quick changes if need be, said Anthony Soohoo, senior VP and general manager of entertainment for CBS Interactive. “The Web allows us to nimbly adjust our scripts based on what the audience is seeing, and it lets the sponsors adapt to the needs of the audience,” he said. “Advertisers are always looking to extend their brands in new innovative ways, and Web originals let a brand be associated with a storyline and have some type of voice in the creative process.”

When CBS created its Web original “Novel Adventures,” which ran online last month, General Motors’ Saturn car was integrated into each episode. CBS likely will strike a brand integration deal for the “Harper’s Island” Web project, Mr. Soohoo said.

NBC has taken the same approach with its digital studio and often develops shows on behalf of marketers, said Cameron Death, VP of digital content for NBC Entertainment. NBC.com won’t launch a Web show until it has advertisers on board. “We don’t just greenlight willy-nilly, but our mission is to find the brands for these shows to finance production,” said Mr. Death.

The studio’s biggest production so far was the fall release of Web hit “Gemini Division” starring Rosario Dawson. NBC signed deals with Acura, Intel, Cisco, UPS and Microsoft to sponsor that show.

Advertisers like the brand-integration ad model for Web originals. “Advertisers will definitely embrace broadcast networks’ original programming for the Web,” said Scott Lackey, co-founder and strategic director of Jugular Advertising in New York. “Right now, it’s all about overcoming all the various means of circumventing advertising, from mute buttons to TiVo.”

Other networks aren’t so keen on originals. ABC scaled back its original Web show production to concentrate instead on short online videos related to prime-time series such as “Ugly Betty” and “Scrubs.” Those attract bigger audiences and more advertiser interest than originals, said Alexis Rapo, VP of digital media for ABC Entertainment.

At CWTV.com, the focus is on existing network shows. “The site is a digital extension of our network brand, and that generally means our shows and our stars,” said Paul Hewitt, spokesman for the network. “So if the viewers want more about ‘Gossip Girl’ or ‘90210’ or ‘One Tree Hill’ or ‘Supernatural,’ that’s what we provide online.”

Many of the Web shows NBC is developing for 2009 will be targeted to a female audience, letting NBC tap into distribution opportunities on its Web properties including iVillage and the Web sites for cable networks Oxygen and Bravo, Mr. Death said.

All five broadcast networks continue to offer most of their prime-time shows online.



Know what this is? ----->





THE CGC COMMUNICATOR

Robert F. Gonsett, W6VR, Editor [r.gonsett \(at\) ieee.org](mailto:r.gonsett@ieee.org)
Selected items reprinted with permission



RELEASE OF MAJOR DOCUMENT ON THE DTV DELAY ACT

This FCC document is the Second Report and Order and Notice of Proposed Rulemaking on the DTV Delay Act, among other things. The Comment deadline is five days after the text appears in the Federal Register.

For a simple explanation of this behemoth document, see the first URL.

<http://tinyurl.com/April16>

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-11A1.doc

http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-521A1.doc

SEE THE END OF ANALOG ON U-TUBE

KGTV had the foresight to do a live news shot from their Mt. Soledad transmitter at about 11:30 PM yesterday when they switched off their analog transmitter. Someone recorded and posted this historic video on UTube, and you can see it here: <http://tinyurl.com/KGTVEndsAnalog>

ENGINEERING REPORT FROM KSWB, SAN DIEGO'S NIGHT LIGHT STATION

Surprisingly, we've received very few calls on the DTV change. We had set up a mini-call center to answer what we thought would be the deluge of calls coming in, but there were only 25 yesterday and five today, and the receptionist handled all except one or two of them. I had created a FAQ book for those who would be manning the call center and the receptionist had a copy. [That's all she needed to do the job.]

Very few of the calls were complaints; the majority were people who needed to rescan their tuner, or who wanted to know where they could get a DTV tuner. The fact that we are the designated Night Light channel may have helped; users tuning in at least got some information so perhaps not as many needed to call.

As I mentioned, we've only had five calls so far today. We thought we might get more after going through Prime Time last night, but it didn't happen. We are very pleased and very relieved. It looks like San Diego was more prepared than we had expected.

Mia Romano, KSWB Engineering
February 19, 2009 -- 3 PM PST

INFORMAL REPORT FROM A SAN DIEGO CABLE COMPANY

Regarding call volume, we saw slightly lower than projected call volume. I will say that there was a lot of planning and communication between the local broadcasters, Time Warner and Cox Communications, that went into preparing the viewers in the San Diego market and this is why yesterday was such a non-event.

NEWS CLIP OF THE KFMB ANALOG SIGN OFF

To run the KFMB video, click on the unusual video test pattern (assuming it still exists) near the upper right corner of this Web page:

<http://www.cbs8.com/global/story.asp?s=9868675>

NOTES AND COMMENTS

Many informal comments have been received about the partial San Diego DTV transition and the upcoming (June 12) Los Angeles transition. Among them:

o Having consumers rescan is the key, but there are so many different DTV converter boxes and TVs out there that we have to refer callers to their instruction books. Wish we had a master list so we could talk consumers through the steps required to rescan their particular product.

o Some rescans miss our station entirely especially when people use indoor antennas. Callers are told to rescan (again) and that often does the trick.

o Selling folks converter boxes or new DTVs is only half the battle. They also need an adequate antenna, preferably an outdoor antenna, but have you tried to find one of those lately?

o In L.A., at least one antenna installer has been cutting off the "big elements" which aren't needed now, but they sure will become June 12.

o While the [partial San Diego DTV switch] hasn't been hard on broadcasters, there are some viewers who are just plain left behind for several reasons including the digital cliff edge effect. And wait until summer when the inversion layer rolls in and impacts viewers.

o For DTV converter boxes, stereo sound is "optional:" <http://dtvfacts.com/latest/441/dtv-adapter-stereo/>

o Looking ahead to the Los Angeles DTV switch: http://www.latimes.com/business/la-fi-dtv17-2009feb17_0,4108978.story

UNUSUAL EVENTS HERALDING THE DTV TRANSITION

o Two large communications satellites (Iridium #33 and a believed-to-be defunct Russian bird) collide in space creating a huge debris field that endangers other satellites:

<http://tinyurl.com/SatCrashPart2>

o Sirius XM on the verge of bankruptcy absent a white knight:

<http://tinyurl.com/InSiriusTrouble>
<http://tinyurl.com/Sirius-Bankruptcy>

o Muzak, elevator-music creator, files for bankruptcy:

<http://www.radioworld.com/article/74594>
<http://tinyurl.com/MuzakC11>

FINAL PROCEDURES FOR ANALOG TV SERVICE TERMINATION

The FCC has adopted final procedures for analog TV service termination and revisions to the DTV Consumer Education Initiative implementing the DTV Delay Act.

Here is the short story from Broadcasting & Cable...
<http://tinyurl.com/arksqr>

...and the whole enchilada from the FCC (46 pages):

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-19A1.doc

DTV CONVERTER BOXES REVIEWED

KABB(TV) and KMYS(TV) in Texas purchased every model of DTV converter box that is commonly available for sale. Then they evaluated the boxes and gave them A/B/C/D school-type grades and provided their impressions of each box on the following Web page. Once you click on a given model number box, note that the instruction manual is available for downloading.

It turns out that two of the boxes contain event timers that can be used to change channels to feed a VCR or DTR (see the Dish DTVPal and Zinwell's ZAT-970A). The abilities of the clocks to hold the correct time is not discussed.

<http://www.wchstv.com/dtvconverterboxes/>

MAKESHIFT DTV RECEIVING ANTENNA WORKS WELL

Rick Sietsema of CBS Radio has rigged up a makeshift DTV receiving antenna at his home in Chatsworth and reports that it works surprisingly well. Electrically, the antenna could probably be best described as a small diameter loop anchored to the wall. Rick can be reached at [RSietsema \(at\) cbs.com](mailto:RSietsema(at)cbs.com) and his long-form letter follows:

<http://www.baseballdogs.com/cbs//dtv.html>

WEB CAM COVERS FLORIDA TOWER ERECTION

This isn't Southern Cal, but I'm sure lots of folks would enjoy it anyway. WPLG-TV started erecting their new 1049' candelabra tower in Miami, Florida yesterday, March 12, 2009.

Here is a very cool webcam site where you can watch the work progress.

Besides WPLG-TV, WSVN-TV will eventually be moving on as well, and WLYF-FM will also have a new ERI panel and side mount aux up there. Not something you get to see every day, so I wanted to pass it along.

<http://tinyurl.com/d9vw8l> (Web cam)

A RAPID-RECHARGE LITHIUM BATTERY

Materials scientists at MIT report that they've invented a new kind of lithium-ion battery that can fully charge or discharge in seconds, instead of minutes. If commercialized, the battery could allow future hybrid cars to rapidly recharge their batteries, or it may lead to new consumer products, the scientists say.

<http://www.spectrum.ieee.org/mar09/8149>



NEWS BRIEFS



Low Power & Translators

AMENDMENT OF PARTS 73 AND 74 OF THE COMMISSION'S RULES TO ESTABLISH RULES FOR REPLACEMENT DIGITAL LOW POWER TELEVISION TRANSLATOR STATIONS.

Amended Parts 73 and 74 of the Commission's Rules to Establish Rules for Replacement Digital Low Power Television Translator Stations. (Dkt No. 08-253). Action by: the Commission. Adopted: 12/22/2008 by NPRM. (FCC No. 08-278). MB

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-278A1.pdf

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-278A2.pdf



Bye bye traditional phone lines

Bloomberg News

Verizon Communications Inc., the second-biggest U.S. telephone company, said it will do away with traditional phone lines within seven years as it moves to carry all calls over the Internet.

The company will start offering Internet calls to its FiOS Web and TV customers in the next couple of months, starting in Maryland, Chief Marketing Officer John Stratton said at the Consumer Electronics Show in Las Vegas. By offering so-called voice-over-Internet-protocol, or VoIP, calls, Verizon is mimicking providers such as Vonage Holdings Corp. and cable companies, which have won customers with digital plans. An Internet-based service can be maintained at a fraction of the cost of a phone network and helps Verizon offer a greater range of services, Stratton said. "We've built our business over the years with circuit-switched voice being our bread and butter -- for 100 years that's been our business -

- but increasingly, we are in the business of selling, basically, data connectivity," Stratton said. "If you think about it, it's a very, very natural evolution."

Verizon and rivals such as AT&T Inc. are losing home-phone lines as customers rely on mobile handsets or switch to cable companies that sell digital call plans as part of a package with Web and TV service. Verizon lost 3.7 million lines in the third quarter from a year earlier. The company sells mobile services with Vodafone Group PLC and has rolled out TV and Web services, including the FiOS fiber-optic network. Verizon fell 23 cents to \$32.16 in New York Stock Exchange trading. The New York-based company dropped 24 percent in the past year.



Pinnacle Studio 12

Selected as Best Introductory Editing Software by Videomaker Magazine

During this year's CES, it was announced that Pinnacle Studio™ version 12, is the recipient of Videomaker Magazine's 2008 Product of the Year Award. Videomaker, a publication for videographers and video enthusiasts, featured Pinnacle Studio as "The Best Introductory Editing Software" in its February 2009 issue.

Pinnacle's Studio™ Ultimate version 12 was a featured door prize given away during the Tech-Notes Taste of NAB 2008 tour at seventy-five venues.



Well-known for combining power with the latest technologies, makes this software exceptionally easy to use. According to The NPD Group/Retail Tracking/Consumer Video Editing (Annual 2007) – US, Pinnacle Studio software is number one in the consumer video editing market in the U.S. and in major European countries. It has also found its way into the broadcast arena as a favorite not only of novices and hobbyists, but of advanced users as well. The Pinnacle Studio line offers affordably priced solutions for every budget and every level of experience. In addition to software package which we gave away last year – the Pinnacle Studio Ultimate software (with its more advanced audio and video tools, including a complete HD workflow), Pinnacle also offers the Pinnacle Studio, a more basic version. This product line also includes Pinnacle Studio Plus, and intermediate version as well.

Videomaker's managing editor, Jennifer O'Rourke, who was on the team of editors who chose Pinnacle Studio as "The Best Introductory Editing Software," described her selection approach. "My 'process' was going into it as if I knew nothing about non-linear editing to see how intuitive and easy it really was." In a recent review of Pinnacle Studio Ultimate version 12, O'Rourke praised the software for "Marrying Ease and Fun Together," and added that Pinnacle Studio "has lots of features that give you a big-time editor's look and feel, using templates and presets that add filters and effects without your having to do the math - good for beginners."

In addition to being recognized as Product of the Year by Videomaker, Pinnacle Studio has also received nearly forty key awards in 2007 and 2008, including PC Magazine's Editors' Choice Award for consumer video editing software and the coveted European Imaging and Sound Association (EISA) Award for "European HD Video Editing 2008-2009."

For tutorials, demos, overviews and tips on all Pinnacle Systems® solutions go to www.pinnaclesys.com/pinnaclelife.



USB 3.0 - The next generation of USB ports 10 times the speed USB 2.0.

With more than 2 billion legacy wired USB connections in the world today, Universal Serial Bus (USB) is the de facto standard in the personal computing industry. On the horizon is the next revision of the USB has been released – and it’s 10 times as fast as the last one. Specifications for the 'SuperSpeed' USB 3.0 were published shortly before the first of this year, allowing manufacturers to start bringing next-generation USB devices to market. Consumer products are likely to hit shelves by 2010.

The USB Implementers Forum (USB-IF) claimed the third edition of the data transfer system would be 10 times as fast as version 2.0, and feature improved power efficiency. It will also be backwards compatible with USB 2.0 and 1.1 devices.

“SuperSpeed USB is the next advancement in ubiquitous technology,” said Jeff Ravencraft, USB-IF president and chairman. “Today’s consumers are using rich media and large digital files that need to be easily and quickly transferred from PCs to devices and vice versa. SuperSpeed USB meets the needs of everyone from the tech-savvy executive to the average home user.”

So what’s next? Wireless USB

Soon, these same, fast, interoperable connections will become available in the wireless world, with the introduction of Wireless USB from the USB-IF. Wireless USB is the new wireless extension to USB that combines the speed and security of wired technology with the ease-of-use of wireless technology. Wireless connectivity has enabled a mobile lifestyle filled with conveniences for mobile computing users. Wireless USB will support robust high-speed wireless connectivity by utilizing the common WiMedia MB-OFDM Ultra-wideband (UWB) radio platform as developed by the WiMedia Alliance.

UWB technology offers a solution for high bandwidth, low cost, low power consumption, and physical size requirements of next-generation consumer electronic devices. Wireless USB is the first high-speed wireless personal interconnect technology to meet the needs of multimedia consumer electronics, PC peripherals, and mobile devices. Wireless USB will preserve the functionality of wired USB while also unwiring the cable connection and providing enhanced support for streaming media CE devices and peripherals. Wireless USB performance is targeted at 480Mbps at 3 meters and 110Mbps at 10 meters.

For additional information, contact the respective organizations:

USB-IF Administration Headquarters

admin@usb.org - (Equivalent to the hotline number)

If you have administrative questions, or if you would like information on becoming a USB-IF member please use the e-mail link above

Their address is:
3855 SW 153rd Drive
Beaverton, OR 97006
(503) 619-0426

WiMedia Alliance
2400 Camino Ramon, Suite 375
San Ramon, CA 94583
(925) 275.6604
www.wimedia.org



700 MHz Wireless Mics after Digital transition

Christopher D. Imlay, Esq. [bfitpc \(at\) aol.com](mailto:bfitpc@aol.com) (SBE General Counsel)

The FCC rules NOW do not prohibit the continued use of Low Power Auxiliary devices (including wireless mics) above 698 MHz in the TV allocations (Channels 52-69) after the DTV transition. However, the FCC has proposed to do just that, worrying that the WMs will interfere with public safety and commercial broadband above 698 MHz.

In dockets 08-166 and 08-167, a consolidated proceeding, the FCC already prohibited the manufacture and sale of WMs that operate in the 698-806 MHz band, and proposed to prohibit their operation after February 19, 2008. I am quite sure they will do that, and SBE's comments in that docket supported the proposal. You can expect an FCC order before the end of the year, I think. SBE did ask for replacement spectrum for LP Aux devices, and noted that the compression of WM operation below 698 MHz makes the idea of TV white spaces really ludicrous, but FCC seems inclined to think that broadcasters can just make do with what little spectrum is left for WMs below 698 MHz.

Regards, Chris



Looking Toward Future Technology

If the awards given by the Hollywood Post Alliance group are any indication of what's to come, you might want to take note. The Engineering Excellence Award was created to showcase and reward inventors, manufacturers, vendors and companies for outstanding product or technology application offerings.

Quantel got an award for Pablo Stereoscopic 3D – This is a real time stereo 3D system that makes live action stereoscopic post production viable for the first time. Pablo allows both the editor and director to view both stereo streams simultaneously at full resolution and to make realtime adjustments.

FastSoft also received an award for their E Series Internet Accelerator which is a single-sided appliance that accelerates the speed of data downloads up to 30x without caching or compression.

The third organization to get an award was Panasonic for their AVC-Intra 100 Video Codec which is a file based HD video Codec that can achieve the compression ratio required to encode full resolution 10

bit HD video at 100 Mbps. It is suitable for portable field acquisition as well as making master archives.

Even though this information is a bit late in getting to you, it is still, none-the-less important to make note of it as it may be an indication of which direction technology will be going.

The Economy Be Damned – Full Speed ahead with Mobile DTV

According to an article that appeared in TV Technology, there is a \$10 Billion Market Forecast for Mobile DTV even though the economy outlook is not very rosey. The executive director of the Open Mobile Video Coalition, Anne Schelle said: "Clearly, broadcasters are poised to launched mobile TV in 2009." She said that between advertising and pay-TV deals, broadcasters could soon reach \$10 billion in annual revenues.

Perhaps this will be an alternate distribution media for broadcasters who seem to be losing viewer market share. For more information, go to: www.tvtechnology.com/article/68090

TVs Moving to HD News with JVC Camera

Having lived with the JVC GY-HD250 mid-priced, pro-grade HDPro video camera for the entire Taste of NAB 2008 Road Show, it is not surprising to us that it has made significant inroads into the ENG market, not to mention, due to its versatility, doing the same in the studio market as well. We called it a camera for ALL seasons and ALL reasons.

Two large station groups, Raycom Media and Newport Television (formerly Clear Channel Television), have adopted the HD250 for studio use as they gradually upgrade their stations for HD news production.

And at least two small groups, Morris Network and Waterman Broadcasting, have done the same. Morris has installed the camera at four network affiliates; Waterman, at its NBC-ABC duopoly in Fort Myers, Fla.

Because of their size, the Newport and Raycom are big scores for JVC. Newport operates 23 stations in 18 markets. Raycom has 30 news producing stations, including the CBS affiliates in Cleveland (WOIO) and Charlotte, N.C. (WBTV).



Newport's embrace of the HD250 for studio production is part of a larger deal with JVC, involving at least 150 cameras, the HD250 as well as the lower cost HD200s, which the group intends to use for studio and ENG and we can't wait to see it in operation at our local NBC/Newport station KMTR in Eugene.

Newport began the rollout of the HD250s at their flagship station, WKRC Cincinnati. The CBS affiliate went live with the cameras recently, offering viewers news in a 16x9 SD format. The station will switch to HD news by the end of the year after it completes the installation of

a new HD production switcher, says Kurt Thelen, director of engineering and former Chief Engineer of KMTR.

The HDPro HD250, with a built-in digital tape recorder, is essentially a camcorder designed for ENG applications.

Scripps made the HD250 a player in the ENG market last year with its group-wide purchase. Scripps became convinced that the HDPro system with its 720P native imager and 780/1080 output delivered pictures comparable to the Sony XDCAM and Panasonic P2 systems at less than half the price.

But the HD250 can be easily configured for studio use with an adapter or "sled" containing inputs and outputs for monitoring and control, a cable and an eight-inch HD viewfinder. The HD250 also has a lens adapter that permits cinematographers to use their favorite film lenses on this camera as well.



Unlike Newport, which is using the camera for studio and the field, Raycom is using the HD250 for studio work only.

Raycom is gradually upgrading its 30 news-producing stations for HD origination with the camera. WIS, the ABC affiliate in Columbia, S.C., just became the 10th station in the group to be equipped with it.

WIS is not quite ready to make the leap to HD, however, says Raycom's chief tech Dave Folsom. That will come early next year after all the other pieces in the station's HD upgrade fall into place.

Of the other nine stations equipped with the HD250 studio cameras, he says, only two are not yet broadcasting HD news, WXIX Cincinnati and WTVR Richmond.

Folsom notes that Raycom has two other stations broadcasting HD news — WBTV Charlotte, N.C., and WWBT Richmond, Va. — without the HD250. The stations, just purchased from Lincoln Financial, use Panasonic studio cameras.

Folsom is confident in his choice of the HD250. "The image quality is surprising good and, given its price, it kind of hit a sweet spot," he says. "You have two curves — one being price, the other being quality. You like to be able to buy something where those two curves cross."

Folsom concedes that the HD250 is "not the best camera you can possibly buy." That would be cameras that cost two to three times as much. But given financial constraints, the pictures that the HD250 produces are more than competitive, he says.

"The cost of converting to HD is horrendous! We are going to spend a huge amount of money converting our master control, a huge amount of money converting our news production facilities and it's coming at a time in broadcasting when advertising is down and times are tough," he added.

"We have a lot of No. 1 news stations and our viewers expect a certain level of quality from us. Trying to balance these budgets against expectations of very high quality is always difficult.

"It's really easy to spend \$2 million or \$3 million converting your news production to HD and we just don't have those kinds of dollars to spend, especially when we have 30 stations to outfit."

According to Folsom, JVC first pitched the HD250 to him for ENG, for shooting outside the studio, but he wasn't interested. "It's a much better studio camera than it is a field camera," he says.

The camera's built-in tape recorder is a linear recording medium that is incompatible with the file-based workflow Raycom is implementing, Folsom says.

For others, including Scripps and Newport, JVC has overcome that objection by offering a back-end adapter that allows users to affix a hard drive as the primary recording medium.

But Folsom says that arrangement adds extra weight and size. With the hard drive and other add-ons, "it becomes kind of an unwieldy camera."

For ENG, Folsom says, Raycom is wedded now to the Panasonic P2 system, which uses proprietary high-capacity memory cards for recording.

Folsom is not totally committed to the HD250 for all 30 of its news-producing stations. Another camera may come along that tops it, but until one does he will keep ordering the HD250, he says. "It's safe to say that for the present this is the camera we are using."

Typically, Folsom says, he is buying at least four cameras for each station. Some stations want extra units for the newsroom or some other production. "Every station has a different wrinkle." WKRC's Thelen says he likes the HD250 in the studio, not only for its image quality, but also for its versatility.

"The camera could be configured as a true studio camera with CCU and RCU controls, whereas other manufactures didn't have that complete capability within this product range," he says. "Another major concern for us was the flesh tone detail ability which exceeded our expectations," he adds.

With the Scripps, Newport and Raycom deals under its belt, Joe D'Amico, director of broadcast sales, digital video division, JVC Professional Products, believes JVC is now well positioned in the HD ENG and studio markets as the cost-effective alternative to Panasonic, Sony, Hitachi, Thomson/Grass Valley and others.

"Any time JVC can get in front of the customer, more often than not now, we win," says D'Amico. "In hard economic times, we are even more of a player because our cameras are looked at as having a lot of value."



"Performance-wise, the 250 is able to compete with much more expensive cameras. In the studio market, our competitors are \$70,000 to \$100,000," he says. "Is it toe to toe? Do we have all the features? No, we don't. But we have the enough of what they need."

From our experience with this camera on the Taste of NAB 2008 Road Show, we would have no problem using it as a field production camera under most any circumstances.



3 LCD Firms Plead Guilty in Price-Fixing Scheme

Three Asian electronics firms have agreed to plead guilty and pay \$585 million in fines for conspiring to drive up the prices of LCD screens used in computers, TVs, cell phones and other electronic devices.



In a plea deal, LG Display Co. Ltd., Sharp Corp., and Chunghwa Picture Tubes Ltd. agreed to cooperate in an antitrust investigation headed by the U.S. Justice Department. The plea agreement was filed in federal court in San Francisco.

LCDs, or liquid crystal display monitors, are the glass display screens on many laptop computers, cell phones and new TVs.

Assistant Attorney General Thomas O. Barnett said the scheme cost not only consumers, but also Dell Inc., Motorola Inc. and Apple Computer Inc. He did not have a cost value for the losses, and said the investigation is continuing.

There is a \$70 billion worldwide market for LCD screens. Regulators in Asia and the European Union also have opened investigations into LCD pricing.

The Justice Department said LG Display, a South Korean company, and its LG Display America Inc. unit agreed to pay a \$400 million fine for participating in a conspiracy to fix the price of certain LCD panels from September 2001 to June 2006. That is the second highest criminal fine ever imposed by the Justice Department's antitrust division.

Chunghwa, a Taiwanese company, agreed to pay \$65 million for participating with LG and other unnamed companies in the price-fixing conspiracy between September 2001 and December 2006.

And Sharp, a Japanese company, agreed to pay \$120 million for participating in separate conspiracies to fix the price of certain LCD panels sold to Dell, Motorola and Apple between 2001 and 2006. Those panels were used in computer monitors, laptops, Motorola Razr mobile phones and Apple's iPod portable music players.

Representatives from LG Display and Chunghwa could not immediately be reached for comment Wednesday afternoon.



Information & Education



SBE University Offers 8-VSB Course

The SBE has introduced the fourth course in its SBE University series of on-line, on-demand courses for broadcast engineers. The SBE 8-VSB Course is written by Douglas W. Garlinger, CPBE, 8VSB, CBNT, a Fellow in the Society of Broadcast Engineers and Senior Broadcast Engineer for Qualcomm Media FLO.

The purpose of the SBE 8-VSB course is to give the student an overview of the 8-VSB system from end to end, providing all of the basic information he or she will need to understand the nature of 8-

VSB modulation and to recognize deficiencies in the transmitted signal. This information will be invaluable in installing, maintaining and operating a digital television transmitter facility. Much of the material contained in this course will aid the student in his or her efforts to obtain the SBE 8-VSB Specialist Certification.

The primary focus of the SBE 8-VSB Course is RF transmission and the process employed to transform the 19.39 Mbit/s transport signal into a signal suitable to modulate the transmitter. The course will also touch briefly on some of the important elements in the transport stream, such as video compression, picture formats, Active Format Description, PSIP and Dolby AC-3 audio.

“The SBE Education Committee has been working to identify those training areas and topics that would be the most beneficial to our membership and the broadcast engineering community at large,” said Education Committee Chairman Cris Alexander, CPBE, AMD, DRB. “DTV was near the top of the list on a recent member survey, and this course was produced in response to that. We commit to continue to seek out such needs and respond with new online courses.”

SBE President Barry Thomas, CPBE, CBNT remarks on the introduction of the new course, "SBE University is an exciting way for the Society to provide excellent broadcast engineering education. This 8-VSB course provides an important avenue to strengthen today's engineers and develop the media engineers of the future.”

A more thorough description of the SBE 8-VSB Course, including a course syllabus, and enrollment information, can be found at the SBE website at www.sbe.org/SBE8-VSBCourse.php.

The Society of Broadcast Engineers is the professional organization for television and radio engineers and those in related fields. SBE has more than 5,600 members in 112 chapters across the United States. There are also members in more than 20 other countries. Most chapters meet monthly and offer educational programs and an opportunity to network with other engineers. SBE offers the largest and most recognized certification program for broadcast engineers, operators and technicians, with more than 5,000 certifications currently active.

For more information about SBE, contact John L. Poray, CAE, Executive Director, at 317-846-9000 or visit the SBE web site, www.sbe.org.



DTV- Links You May Like

From an SBE Newsletter
Vinny Lopez, CEV, CBNT
SBE Vice President

With the TV analog signal shut-off delayed until June 12, broadcast engineers will continue to be asked many questions about the conversion. We all know most of the popular consumer related web links such as dtv.gov and like, but how about some others that have great information for any station engineer.

One of the sources is at the AV Science forums, specifically the CECB forum, located at <http://www.avforum.com/avs-vb/forumdisplay.php?f=186>

It is a forum of converter box users that provides a wealth of information on the many choices of boxes out there. There are also forums on a market by market basis where viewers talk about DTV.

Another item that may be of interest is Gary Sgrignoli's list of Frequently Asked Questions regarding the DTV transition. It's 65 pages of everything you want to know about the transition. You can find it in Tech-Notes. #141 at http://www.tech-notes.tv/Archive/tech_notes_141.pdf

An interesting site is <http://www.rabbitears.info>, run by Trip Ericson, who is in reality, Mark Columbo, the 2007 Ennes Trust Youth Scholarship winner. He has pages of great info including a signal search by zip code, power calculators, listings of stations and streams.

Probably some of the best tools out there though are the Longley-Rice overlays available from Google Earth at <http://www.tvfool.com>. These can be used to get a look at predicted signal levels at street level addresses in the DMA.

More Info/Order - SBE TV Operator Handbook, 7th Edition
Society of Broadcast Engineers, Inc.
9102 North Meridian Street, Suite 150
Indianapolis, IN 46260



DTV Training
From: Gary Sgrignoli

Through underwriting from the IEEE Broadcast Technology Society, Gary Sgrignoli and I were able to create a [video] program called "Receiving DTV" which we have made available to any stations that want to use it as part of their education of their over the air viewer. The program is available for viewing at the URL below.

Any station that would like a copy of the program should send me an e-mail request.

William T. Hayes, Director of Engineering and Technology Iowa Public Television, [hayes \(at\) iptv.org](mailto:hayes@iptv.org)

<http://tinyurl.com/NewDTVSigProgram>



The New World of Digital Television
Four sessions at NAB this year of possible interest:
The World in Transition
New Technologies for New Services
Revenue Generation versus Regulation in the New Digital World
The Standards Based Ecosystems

The MPEG Industry Forum (MPEGIF), in cooperation with the Open IPTV Forum, are presenting a full day MPEGIF Master Class titled "The New World of Digital Television" at NAB 2009, on Sunday, 19 April, 2009 between 10am and 5.30pm in the Las Vegas Convention Centre, Room S228. This unique conference will bring together industry experts representing the most influential players in next generation video entertainment, multimedia and standards-based video delivery.

This year's MPEGIF Master Class at NAB will tackle a broad range of technology, business and regulatory issues in relation to the transition from analogue to digital television though the

participation of prominent executives from international, pioneering industry players who will speak and exchange their views and experiences, both good and bad, as to how digital Television is created, delivered and monetized. In addition, the Open IPTV Forum will provide insights into the way in which standards for end to end IPTV ecosystems can benefit operators and their business models.

KEYNOTE SPEAKERS:

- * Robert Clasen - Chairman & CEO, Starz, LLC
- * Oleg Kolesnikov - Technical Director, NTV+
- * Roderick Snell - Founder, Snell & Wilcox
- * Bob Luff - CTO, Nielsen
- * Kay Johansson - CTO, MobiTV
- * Shelly Palmer - Managing Director, Advanced Media Ventures Group & Host of MediaBytes with Shelly Palmer
- * Yun Chao Hu - Chairman Open IPTV Forum

PANELISTS:

- * Robert Clasen - Chairman & CEO, Starz, LLC
- * Hanno Basse - VP, Broadcast Systems Engineering, DIRECTV Inc.
- * Alvaro Gazzolo - President & CEO, IPTV Americas
- * Oleg Kolesnikov - Technical Director, NTV+
- * Roderick Snell - Founder, Snell & Wilcox
- * Randy Hank - Video & Planning Chief of Staff, AT&T
- * David Gillies - CEO, Isis Digital
- * Jim Kutzner - Chief Engineer, Public Broadcasting Service

- * Bob Luff – CTO, Nielsen
- * Kay Johansson - CTO, MobiTV
- * Shelly Palmer - Managing Director, Advanced Media Ventures Group & Host of MediaBytes with Shelly Palmer
- * Allen Harkness - Director, Licensing, MPEG LA
- * Yun Chao Hu - Chairman Open IPTV Forum
- * Scott Lofgren – Product Manager, Industry Standards and Initiatives, Intel Corporation
- * Stephen Christian - VP Marketing, Verimatrix
- * Lieven Vermaele - Director, EBU Technical and EBU IT Services

This MPEGIF Master Class will be chaired by:

- * Sebastian Moeritz, President, MPEGIF / CEO, dicas
- * David Price, Vice President, MPEGIF / Vice President, Harmonic
- * Monika Gadhammar, Vice Chair Open IPTV Forum Marketing Workgroup

To view the complete agenda and speaker bios, please visit:
<http://www.mpegif.org/exhibitions/NAB2009/agendaNAB.php>

To register, please click here: <http://www.nabshow.com/2009/education/mpegif.asp>



SOCIETY OF BROADCAST ENGINEERS CERTIFIED SCHOOL LISTING

Bates Technical College

1101 S. Yakima Ave.
Tacoma, WA 98405
Contact: Michael Scott
Phone: (253) 680-7198
E-mail: [okscott \(at\) halcyon.com](mailto:okscott(at)halcyon.com)
www.bates.ctc.edu

For course completion, certification applicants must take the SBE Certified Broadcast Technologist® (CBT) exam.

Boise State University – Seland College of Applied Technology

1910 University Dr.
Boise, ID 83725
Contact: Lorin McArthur
Phone: (208) 426-5766
E-mail: [lmcarthur \(at\) boisestate.edu](mailto:lmcarthur(at)boisestate.edu)

This program prepares students to sit for examinations in up to two levels of SBE Certification: Certified Television Operator®

(CTO®) and Certified Broadcast Technologist® (CBT).

Cayuga Community College

Franklin St.
Auburn, NY 13021
Contact: Steve Keeler
Phone: (315) 255-1743
E-mail: [keeler \(at\) cayuga-cc.edu](mailto:keeler(at)cayuga-cc.edu)
www.cayuga-cc.edu

The local Chapter Certification Chairman meets with the proper faculty member at Cayuga and evaluates an applicant's status. Upon verification, applicants who apply for certification are awarded the classification SBE Certified Broadcast Technologist® (CBT).

*Students must apply within one year of graduating.

Cleveland Institute of Electronics

1776 East 17th St.
Cleveland, OH 44114
Contact: Scott Katzenmeyer
Phone: 800-243-6446
www.cie-wc.edu

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Cuyahoga Community College

2900 Community College Ave.
Cleveland, OH 44115
Contact: Jim Heidenreich
Phone: (216) 987-4006
E-mail: [james.heidenreich \(at\) tri-c.cc.oh.us](mailto:james.heidenreich(at)tri-c.cc.oh.us)
www.tri-c.cc.oh.us/Metro

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Hocking College

3301 Hocking Parkway
Nelsonville, OH 45764
Contact: Harry Tompkins
Phone: (740) 753-7147
E-mail: [tompkins_h \(at\) @hocking.edu](mailto:tompkins_h(at)hocking.edu)
www.hocking.edu

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Loyalist College of Applied Arts and Technology

Box 2400
Wallbridge Loyalist Road
Belleville, ON
Canada
K8N 5B9
www.loyalistcollege.com

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty. Program begins September 2008.

*Students must apply within one year of graduating.

Michigan Career & Technical Institute (MCTI)

11611 W. Pine Lake Rd.
Plainwell, MI 49080
Contact: Philip Schmitt
Phone: (269) 664-9249
E-mail: [schmittp \(at\) michigan.gov](mailto:schmittp(at)michigan.gov)
www.michigan.gov/mcti

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Milwaukee Area Technical College

700 West State St.

Milwaukee, WI 53233

Contact: Mark Porubsky

Phone: (414) 297-7274

E-mail: [porubskm \(at\) matc.edu](mailto:porubskm@matc.edu)

www.matc.edu/documents/catalog/Electronic_.html

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Mitchell Technical Institute

821 North Capital

Mitchell, SD 57301

Contact: Jim Grace

Phone: (605) 995-3065

E-mail: [gracej \(at\) mti.tec.sd.us](mailto:gracej@mti.tec.sd.us)

www.mti.tec.sd.us

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Napa Valley College

2277 Napa Vallejo Hwy.

Napa, CA 94558

Contact: Steve Goze

Phone: (707) 253-3258

E-mail: [SGoze \(at\) napavalley.edu](mailto:SGoze@napavalley.edu)

www.nvc.cc.ca.us

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Pasadena City College

1570 East Colorado Blvd.

Pasadena, CA 91106

Contact: Paul Kilian

Phone: (626) 585-7216

www.paced.cc.ca.us

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Southern Alberta Institute of Technology

1301 - 16 Avenue NW

Calgary, Alberta

Canada T2M 0L4

Contact: Jim Murtagh

Phone: (403) 284-8962

E-mail: [jim.murtagh \(at\) sait.ca](mailto:jim.murtagh@sait.ca)

<http://broadcast.sait.ca>

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Spartan School of Aeronautics

8820 East Pine

Tulsa, OK 74115

Contact: Jim Bowles

Phone: (918) 836-6886

E-mail: [jim \(at\) bowlesonline.com](mailto:jim@bowlesonline.com)

www.spartanaero.com

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

Spokane Community College

MS 2010

1810 N. Greene St.

Spokane, WA 99217-5399

Contact: John Barnett

Phone: (509) 533-8674

E-mail: [jbarnett \(at\) scc.spokane.edu](mailto:jbarnett@fcc.spokane.edu)

www.scc.spokane.edu

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

St. Louis Community College at Florissant

Valley

3400 Pershall Rd.

St. Louis, MO 63135

Contact: Daniel Landiss

Phone: (314) 513-4315

E-mail: [dan \(at\) @landiss.com](mailto:dan@landiss.com)

www.stlcc.cc.mo.us/fv

Students who complete the program with a grade B or better, who apply for certification, are awarded the classification SBE Certified Broadcast Technologist® (CBT) upon receipt of verification from faculty.

*Students must apply within one year of graduating.

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Phone: (301) 677-2968

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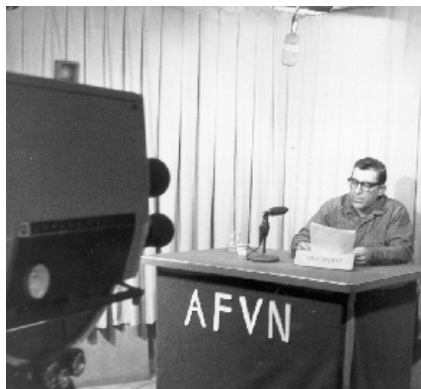
Certified Broadcast Technologist® (CBT) certification is granted upon satisfactory completion of the military training program and a review by the National Certification Committee. This includes completion of the Basic Television Equipment Maintenance Course and the Broadcast Radio and Television Maintenance Course

*Students must apply within one year of graduating.

Dantes Military Training

Located at military bases throughout the United States and worldwide

*Students must apply within one year of graduating.





Preserving Television History




Things you don't hear anymore.

How many of these names and/or phrases can you truthfully remember or know what they mean?

Hair in the gate.	Lenticular color recording
Telecine	Optical multiplexer
Spudger	Spindler-Suppe
Ball Brothers	Dumont Television Network
Conrac	Frame Store
Ampex	Flying Spot Scan
Editec	Film Island
Amtec	Monoscope
Autocomp	3:2 pull down
Developing solution	Hot kine
TV Channel 1	Orth spot
Pix Clear	Dynode
Kinescope	Bell-Optigan
Film Chain	Audio Snake
Kinescope recording	Masking light or lamp

If you can think of any more of these terms, send them on. Its fun trying to remember what they are and where they were used: if you have pictures to go with them, even better. These were thought up/recalled in just a few minutes.



3, 2, 1, Woof

Gleaned and edited from the Broadcasters' Mailing List
[broadcast \(at\) radiolists.net](mailto:broadcast(at)radiolists.net)

While listening to an NPR program that featured some shortwave closed circuit broadcast material from the late 1930's and during the war in the 1940's. Whoever was feeding the program would say something like "we'll begin in 1 minute from.... WOOF". The host of the show asked why they used the word "woof" to mark the time, but none of the guests with the audio clips knew the answer.

I was surprised, because I've certainly used the word "woof" myself in the past when giving a sports network a time cue, but I guess I wasn't curious about the origin of the word until now. Does anyone know, or care to guess?

Is this question going to open another can of worms, like NEMO?

Posted by Steve Brown, Radio Rangers, Minneapolis



The Ampex VRX-1000 - 2 inch Quadruplex Video Tape Machine

By Larry Bloomfield

Really going back into TV's history is this picture of a 2 inch Quadruplex (also called 2" Quad, or just "quad", for short) video tape machine. Although I'm not sure, I believe this was taken in the basement at Television City (Fairfax & Beverly) in Hollywood where CBS had most all of their network delay devices, including their kinescope recorders.

The Ampex VRX-1000 (later renamed the Mark IV) videotape recorder was introduced on March 14, 1956, at the National Association of Radio and Television Broadcasters in Chicago. This was the world's first practical videotape recorder and was hailed as a major technological breakthrough.

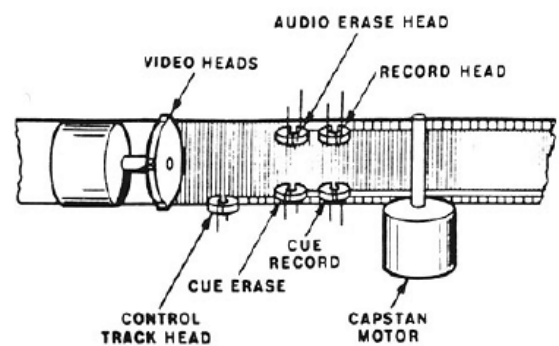
CBS went on air with the first videotape delayed broadcast, Douglas Edwards and The News, on November 30, 1956, from Los Angeles, California, using the Ampex Mark IV.



The need for a fast, cost effective network delay was there and Ampex filled it. Most US West Coast network delays done by the TV networks at the time were done with film kinescopes that needed time for developing, the networks wanted a more practical, cost-effective, and quicker way to time-shift programming for later airing on the West Coast (as well as a general production medium that was not as costly or time-consuming to edit and develop as film). These reasons were part of the motivation for designing a video recording technology that used magnetic tape, in this case, 2 inch Quad.



The format got its official name of Quadruplex from the fact that it uses 4 heads mounted on a headwheel spinning transversely (width-wise) across the tape at a rate of 14,400 rpm for 525 lines/30fps-standard Quad decks, and 15,000 rpm for those using the European 625 lines/25fps video standard. This method was called quadrature scanning (as opposed to the helical scan transport used by later videotape formats). The tape ran at a speed of either 7.5 or 15 inches per second (190.5 or 381 mm/s), 15.625 inches per second (396.875 mm/s) 625/25, and the audio, control, and cue tracks were recorded in a standard linear fashion near the edges of the tape. The cue track was used either as a second audio track, or for recording cue tones or time code for editing.



A typical 4800 foot (1500 m) reel of 2 inch quad tape holds approximately 1 hour of recorded material at 15 inches per second (381 mm/s).

Each transversely-recorded track of video on a 2 inch Quad videotape holds one-sixteenth of a field of video. In other words, the format used segmented recording. This meant that 2 inch Quad was not capable

of "trick-play" functions, such as still, shuttle, and reverse/variable-speed playback. But the format had quite sufficient image quality for broadcast (it produced about 400 lines of video resolution), and remained the de-facto format and industry standard for television broadcasting from its inception in 1956 to the mid-1980s, when newer, smaller, and lower-maintenance videotape formats supplanted the role of 2 inch quad.

There were 3 different variations of 2 inch Quad:

- Low-band, which was the first variety of Quad introduced by Ampex in 1956,
- High-band, which used a wider bandwidth for recording video to the tape, resulting in higher-resolution video from the VTR, and
- Super High-band, which used a pilot tone for better timebase stability, and higher coercivity tape.

Most Quad machines made later in the 1960s and 1970s by Ampex could play back both low and high-band 2 inch Quad tape.

The only other real competitor to Ampex in the US for quad recording was RCA. RCA came into the quad arena shortly after Ampex. Most engineers had mixed emotions about the RCA quad machines for a mixture of reasons. There was a brief, but important era of quad cassettes. Ampex had the ACR-25 and RCA had their TRC-100.

Tech-Notes has a whole section on Television Recording on our website. [Just click here to see it.](#)



I Want My DTV

Brought to you by the same people who want to run health care.

Don't change that channel. If you've turned on a TV in the past six months, you've probably heard that, February 17, 2009, is the day that broadcast television is supposed to switch to digital signals from analog. After the transition, older televisions that are not hooked up to cable, satellite or fiber-optic service won't work.

But here's the rub. February 17, 2009 was the day the big switch was supposed to happen. It was written into law back in 2005. But Congress delayed the transition to June 12. So the digital revolution will be televised, but not until late spring -- at least for that small fraction of Americans with rabbit-ear antennas still perched atop their TV sets.

That's right -- after all that advertising, all those public-service announcements about February 17, and despite nearly four years to plan for that date, Congress itself switched at the last minute.

The official explanation is that the Department of Commerce ran out of money to issue coupons for digital-converter boxes to people who applied for them. These boxes cost between \$40 and \$80. And Congress, in 2005, decided to subsidize the converters by issuing a \$40 coupon. Then last November, Commerce warned that it might run out of money to issue coupons if Congress didn't lift a \$1.34 billion financing cap. Congress did nothing. Commerce also suggested that, since nearly 50% of the coupons were expiring unused, Congress could amend the law to allow more coupons to be issued under the cap by taking into account the actual redemption rate. Congress declined to do that too.

January rolled around, and sure enough the coupons ran out four days into the new year. Congressional leaders naturally blamed the Bush Administration and John Podesta wrote a letter on behalf of the Obama transition calling for the switch to be delayed. Congress then passed the Digital Delay Act, pushing the date to June but allowing stations to petition the Federal Communications Commission for permission to switch off analog broadcasts today.

Out of some 1,800 stations around the country, 491 requested permission to go all digital. Another 200 have already switched off analog or were scheduled to by the February 17th date. So instead of a clean switch, we'll had as many as one-third of U.S. stations going digital in February while two-thirds continue to broadcast both analog and digital signals until June. It takes a lot of electricity to beam those signals -- tens of thousands of dollars worth, to say nothing of the carbon footprint of all that double-broadcasting. But we digress.

No doubt there are some people still waiting for their coupons because they waited until the last minute to request them. And it's possible that some are so desperate to catch the next installment of "24" that they'll throw a fit if Fox doesn't come in over their rabbit ears -- but not so desperate to, you know, buy a \$40 converter box with their own money. But the transition was never going to be without challenges, and the June 12 switch will still leave someone, somewhere, with a dark TV.

The difference now is that Congress and the Obama Administration will have full ownership of any snafus. Meantime, there will be confusion about the transition and many angry phone calls. In Washington, this is what passes for regularly scheduled programming.



Good for Sinclair!

Not that anyone probably cares but we at Tech-Notes support all and any stations that just got it over with, finishing the secession of analog on schedule; though the FCC made it not possible for every station. These sentiments probably represent the majority of AVS HDTV forum members.

As far as the general public, they will mostly do something once they see snow on the screen, and not until. Most of them won't encounter that anyway.

It's unimaginable that many people will write their Congress critter just to complain if only a bedroom or bathroom TV set snows.

What follows is a story by Ted Hearn about Sinclair Broadcast Group from the digital video report.

Sinclair Broadcast Group, Inc., one of the largest TV station owners in the U.S., went forward with the digital TV transition on Feb. 17 regardless of whether Congress votes to move the date back to June 12.

In an email, Sinclair executive vice president and general counsel Barry M. Faber told cable and satellite TV providers that 39 stations owned or programmed by the company would keep to the Feb. 17 deadline in current law. A copy of the email was obtained by Digital Video Report.

"I am writing to let you know that even if the legislation being considered by Congress to extend the date of the analog shut-off passes, the following stations [see list below] owned by Sinclair, or to which

Sinclair provides services, will still be ceasing their analog broadcasts at 11:59 pm on Feb.17," Faber announced.

On its corporate web site, Sinclair says it "owns and operates, programs, or provides sales services to 58 television stations in 35 markets," reaching 22% of all U.S. television households. Its television station portfolio includes 20 FOX, 17 MyTV, 9 ABC, 9 CW, 2 CBS affiliates. It has one NBC affiliate.

Congress voted to delay to DTV transition until June 12. Delay legislation got its impetus from the Obama transition team, which claimed the Commerce Department's \$1.34 billion converter box coupon program had run out of money and 6.5 million TV households had failed to prepare for the end of analog TV.

The National Association of Broadcasters supported the DTV delay legislation. Sinclair isn't an NAB member. The Senate bill, sponsored Senate Commerce Committee chairman Jay Rockefeller (D-W.Va.), allows stations to make the transition voluntarily prior to June 12.

In his email to pay-TV providers, Faber indicated that Sinclair's decision should not have come as a surprise.

"I assume that this will not cause any problems with your continued retransmission of the signals of those stations on this list currently being carried by your systems since we have all been planning for a Feb. 17 analog shut-off for quite some time," Faber wrote.

Following is the station list contained in Faber's email.

WNYS-MyNet- Syracuse, N.Y.
WUCW-CW-Minneapolis
KOKH-Fox-Oklahoma City
WUHF-Fox-Rochester, N.Y.
KDNL-ABC-St. Louis

KGAN-CBS-Cedar Rapids
WRLH-Fox-Richmond
WYZZ-Fox-Peoria
WCGV-MyNet-Milwaukee
WEAR-ABC-Mobile

KOCB-CW-Oklahoma City
KBSI-Fox-Cape Girardeau, M.O.
WMYV-MyNet-Greensboro
WSYT-Fox-Syracuse, N.Y.
WPGH-Fox-Pittsburgh

KMYS-MyNet-San Antonio
WKEF-ABC-Dayton
WRGT-Fox-Dayton
WTTE-Fox-Columbus, Oh.
WTTO-CW-Tuscaloosa

WPMY-MyNet-Pittsburgh
WICS-ABC-Champaign, Il.
WBFF-Fox-Baltimore
WNUV-CW-Baltimore
WXLV-ABC-Greensboro

WABM-MyNet-Tuscaloosa
WDBB-MyNet-Tuscaloosa
WNYO-MyNet-Buffalo
KDSM-Fox-Des Moines
WMYA-MyNet-Greenville, S.C.

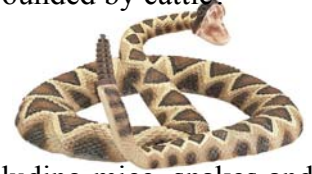
WICD-ABC-Champaign, Il.
WZTV-Fox-Nashville
WUXP-MyNet-Nashville
WNAB-CW-Nashville
WUTV-Fox-Buffalo

KVCW-CW-Las Vegas
WGME-ABC-Portland, ME
WCHS-ABC-Charleston, W. Va.
WVAH-Fox-Charleston, W.Va.



Snake Repellant

The question “What is recommended as a snake repellant around transmitters surrounded by cattle? One answer is Snake Away. <http://www.garden.com/item/snake-away/>



Another suggestion is Moth balls

A moth ball, around the outside of a building, seems to keep most creatures, including mice, snakes and spiders away.

Most moth repellants are made of naphthalene. Naphthalene sublimates (changes directly from solid to gas) and the high molecular weight vapor hugs the floor. If you can get a copy of the MSDS for Snake Away, it will probably show that it has naphthalene as the active ingredient. Moth balls have kept rattlesnakes out of a translator shack on a high rock outcropping, for several years now. Most engineers will tolerate the smell, knowing that something isn't trying to bite them.

Is a new day dawning on regulating news choppers? It's About Time!

Adapted from the SBE National discussion mail list [sbe \(at\) sbe.org](mailto:sbe@sbep.org)

Is the FAA doing the work of station management? It's dangerous up there. Perhaps four lives lost is cause for asking for a little sanity.

Would anyone on this board attempt to fly a helicopter and tell the public about the car chase below and coordinate the many complex tasks involved with four or five aircraft in close proximity to one another, all at the same time? It is amazing that chopper reports go as smoothly as they do.



These issues are address in an article By Sholnn Freeman, Staff Writer for the Washington Post, entitled: “New Rules Proposed for News Helicopters - Pilot-Reporter Role Questioned.” Although this article appeared back in January, the problems have not gone away and really need to be addressed. The photo is of the KNXV-TV helicopter in Phoenix in 2007 after it struck another helicopter and is an Associated Press File Photo. The story can be seen at: <http://www.washingtonpost.com/wp-dyn/content/article/2009/01/28/AR2009012803367.html?hpid=moreheadlines>

Ubuntu Notes by Roy Trumbull

Last summer I bought a copy of Vista and started to put it on my laptop. I got to the point where it evaluated the software on my computer and I found that much of my existing software wouldn't work and that it was doubtful that even the mouse would work. How attractive.

I've gotten rather testy about using MSN because stuff like instant messaging would load. I don't ever use it but parts of the screen would be blocked by boxes that came back again and again after I'd shut them. There's no simple way to disable that clutter. Talk about a company wearing out its welcome.

For several years I'd been considering Linux but knew little about it. Then I saw a story to the effect that Dell would sell you a computer with Ubuntu loaded instead of Vista. Ubuntu is one of the flavors of Linux and Dell's usage I thought was a strong endorsement. I found I could buy an Ubuntu CD and boot from it to check out the look and feel. So that's what I did.



There is nothing about the internet that makes it inherently the realm of Microsoft or Apple. The internet runs on UNIX which is very powerful and very stable. Linux is based on Unix. The chance of it hanging and needing a reboot is very small. An application might fail but the underlying Linux system keeps going.

I'm finding many of the applications I require are available for Ubuntu. Some years ago Sun Microsystems offered a free office suite called Open Office. It provides many of the same applications brand M provides except it is free and the programmers supporting it don't mess with the document format. When software is free there's no incentive to force you to pony up for new versions by screwing with the format. If you search for Open Office you'll find there is a free version that will run under Windows. The download is 118 megs so do it somewhere that has a truly high speed link.

Ubuntu has a synaptic package manager that searches for applications and then downloads all the associated files required to make them run.

I bought a book to help me get started and I think I've read maybe a quarter of it. If you have reasonable hacker instincts you'll puzzle over some things but sort them out without much trouble.

One thing I thought would be a problem was that I'd not be able to get to the text, jpeg, and mp3 files in the Windows partition of my computer. Not so. You can get to all the files and folders on your hard drive and create pointers to them and drag the pointer over to the Ubuntu side of a dual boot computer.

Since I create mp3 files and need to tag them I'd bought software to use with Windows. I quickly found there was a free program for Ubuntu called easy-tag so I downloaded it. I'd had some problems with the database program in Open Office so I downloaded Kexi which is well known database software with international support.

Many applications have their own websites with complete manuals and support forums. You can also file bug reports if you run into problems with an application or feature and actually get a response.

One of the pure pleasures is that from turn on to up and running takes only 40 seconds with Ubuntu versus 3 minutes + for XP. I loaded some free virus software but frankly the hackers prefer to attack brand M. There aren't many Linux viruses. For that reason when I surf the web I use my Ubuntu partition.

A constant pain with Windows XP is that it fights the WiFi driver with the result that when I use the computer for more than 45 minutes I'll have to repair the connection at least once. Using Ubuntu that problem goes away. The only time I lose the connection is when Comcast has problems.

I'll admit there are some applications I must do in Windows because there isn't a Linux software yet for that task. Transferring files from the desktop computer to the laptop over the network can't be done unless both machines are using the same operating system. But overall the geek in me gives 4 stars to Ubuntu.



That's Entertainment!

Those of you who don't know me might think that all I do is sit around all day and complain. Those of you who do know me well know that I don't just sit around all day and complain; I sometimes get up and move about.

I'm supposed to be an engineer. I'm supposed to look at things from a scientific point of view. The problem is that when I turn on the TV at night it's for entertainment's sake. I want to be entertained. At this point I'm no longer an engineer; I'm Joe Blow. I turn on the TV and watch it with the analog receptors that nature gave me, two eyes that sort of work and two ears that work reasonably well.

You know what annoys me most of all about TV? Audio levels! Is there no one that works for any station, anywhere that ever sits at home and just watches TV?

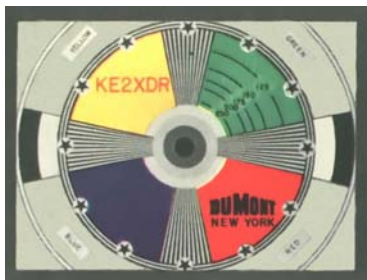
The other night I was watching a movie on one of the local over the air stations, off of a real antenna on the roof. There were a lot of explosions and crashes (in the movie) that should have left the earth perfectly flat. What had I tuned into??? Just as I thought it couldn't get any louder or more annoying they ungracefully cut to a commercial. It was some soft drink commercial that was 10 db louder than the end of the world that preceded the commercial. I've seen, or should I say I have heard, this same thing going from a movie to a promo for the news.

I know we have a lot of sophisticated station engineers with the latest of computerized audio processing out there. But what is going on that precludes the people responsible from listening with the two receptors that nature gave them? Have we taken the art of show business and tossed it out in favor of a microprocessor? Are we assuming that because something is the latest computerized BelchFire VII processor that all that is needed is to turn it on and it will know what to do and know how we (like to) listen.

It seems to me that we've gone to a lot of effort to bring TV sound to the forefront. Maybe it's time that we stop looking at sound and start listening to it.

By the way, the program I was watching? I turned the TV off. Now, how do you plan on getting me to turn it back on?

Burt Weiner
[biwa \(at\) att.net](mailto:biwa@att.net)



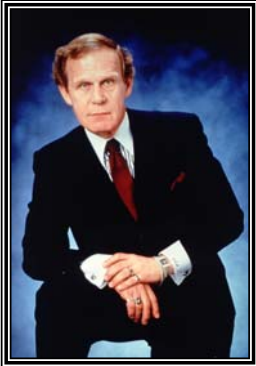


From Andy Marken



Content Insider - CES Wrap-Up

We don't agree that this year's CES attendance was an indicator of an industry decline. The lower numbers were good for a lot of reasons. Unfortunately when the economic tide turns the hordes will probably be back.



3D movies/TV, mini-notebooks and the constant din that we need our entertainment everywhere were the major news points for the show. Beyond that there were incremental enhancements/improvements. Paradigm shifts were not to be seen. But as CEA's Shapiro said it may be tough for a few quarters but the industry is going to innovate itself out of the global economic downturn. Flying to the seat of national government for handouts is not in the companies' DNA.

Surviving and thriving in the PC/CE/content industry isn't always easy, sometimes not much fun but it is always interesting. This is one of those really, really interesting periods.

Content You Can “Almost” Touch, “Almost” Take With You

(Editor's note: *We can always depend on Andy Markham for insiteful looks into the consumer market. Don't look now, but there are many broadcast and post production facilities that dip deeply into the consumer market for both technology and equipment.*)

Ok, CES (Consumer Electronics Show) 2009 was off a little in the number of exhibitors and attendees. So? It was a crappy second half of '08 folks. No one has been drinking happy juice about the prospects for the next six months! Best guess there were only about 90,000 people at the Vegas show (after 5-10 shows a year for 10++ years...you get a feel for these sorts of things).

But...you could get a flight at the last minute...Get a hotel room at the last minute...Get a cab...Not be cramped on the tram...Get a dinner reservation...Talk to the right people...Sounds good to us!

Why We're There

The buzz focused on 3D content, entertainment everywhere and mini-notebooks. Everything else supported the buzz. Lots of groups want 3D here sooner rather than later, for starkly different reasons. Jeff Katzenberg, chief executive of DreamWorks, has been all over the globe pushing the idea of movies in 3D. He is pretty certain that a really trippy entertainment experience is the way he can drag you back into theaters.

To whet your appetite, he's shipping out 150 M of his 3D glasses to folks so they can watch his 90 sec Super Bowl commercial (sorry no costume malfunctions!). In the right theaters the movies are way better than the bad 3D horror flicks we watched bleary eyed as a kid in the 70s.



Good Ol 3D

Back when we were growing up in the '70s super bad horror flicks in 3D were a great way to “relax.” But today's 3D is way better...even the glasses are cooler. From what we saw at CES they'll just keep improving. Problem is retrofitting the theaters won't be cheap so we'll probably see a lot of great 3D “solutions” at NAB (National Association of Broadcasters) next month (yes back to Vegas).

A few of the upgraded old flavor 3D are already available and more are on their way. It'll be 18-24 months before we'll see all digital 3D movies. Like HD, each will be better than the last. A lot of groups want to see good 3D come to your home.

Screening Ideas

Already 7-10 acronym organizations and consortiums want to “contribute” to the next standard for home and mobile device applications. Big and small players demonstrated their ultra best solution for 3D at CES including Sony, Panasonic, Samsung, Toshiba, Dolby, Nvidia, 3M, networks and production companies. The AVN folks can't wait to help advance the technology. Some of the 3D efforts will certainly help drive more screen sales.

HD screens – bigger, thinner, brighter, better – dominated the show floor and they do look great.

Bigger n Better

For the past few CES events you could always count on manufacturers one-upping each other to have the biggest, baddest thin TV screen. This year the honors went to Sharp with their 105-in beauty. Add in internet connectivity and a BD player and you're ready for popcorn. If you get a new one now plan on upgrading again in three-four years or get a set that is 3D ready (yeah like the big box store clerk knows about that!). You'll want it when you're watching 3D BD movies, fairly decent 3D TV shows or playing one of your video games on your set.



Nvidia, EA, Sony (PS3), Microsoft (Xbox) and sure probably Nintendo see fantastic potential in putting the action right in your lap.

Yes we did say BD discs because they will be around. BD is really only in its second year of availability and sales are respectable...didn't knock down the doors like the industry would like but respectable. Prices have come down so players are under \$200. By mid-year they'll be under \$100; nowhere near up-scaling DVD players for \$40 but sheess.

Disc movies and writable media still beat the pipe alternatives for quality and cost. In fact a recent SmithGeiger report showed that if the price is the same 60 percent of the respondents preferred BD movies, 12 percent settled for downloads. If downloads were \$5 less 55 percent still preferred the disc movie while 22 percent would opt for the download. According to one Dolby executive maybe two million 3D capable sets have been sold WW so that means set manufacturers have only scratched the surface of sales.

Taking a page from Gary Shapiro's (CEA president/CEO) playbook, Panasonic has been busy innovating. They showed off their version of real 3D at the show.

3D Class

Panasonic wasn't satisfied with kinda 3D movies at this CES. They went the whole way with a custom beginning to end 3D HD solution. Nothing you'll be able to buy/afford for a few years but it does show the future. The movie was spectacular! Pana's Prototype - But it was a prototype so don't run to the store just yet.



The solution took you from a 3D BD movie played on a 3D BD player, sent over HDMI (high definition multimedia interface) to a 3D TV set. The custom set-up delivers images to both the left and right eye without any loss of resolution.

Alpha to Omega 3D

3D HD content on a blu disc played on a next generation BD player (present systems will probably also work) and magically sent to a 3D HD plasma screen. Panasonic showed everyone they came to play!!! Source - Panasonic

Panasonic did give great show! They're so hot for 3D HD they announced the opening of a special movie authoring center in Hollywood. That's planning...that's



optimism! Ok not really that optimistic. There are already 14 3D-ish movies being released this year, each better than the next.

Videogame developers and sporting events will be running tests this year to prime the pump! By next CES we'll know who is really delivering solutions and the experience. LG and other exhibitors believe 3D will extend outside of the home. It's part of our three-screen mantra. You know...TV set, smartphone, computer screen.

3rd Screen



While video playback has been available on smartphones like the iPhone and Nokia unit to the left, plans are already underway to begin sending TV signals to the units in select US markets. TV to the phone has been enjoyed for some time in the Pacific Basin and Europe

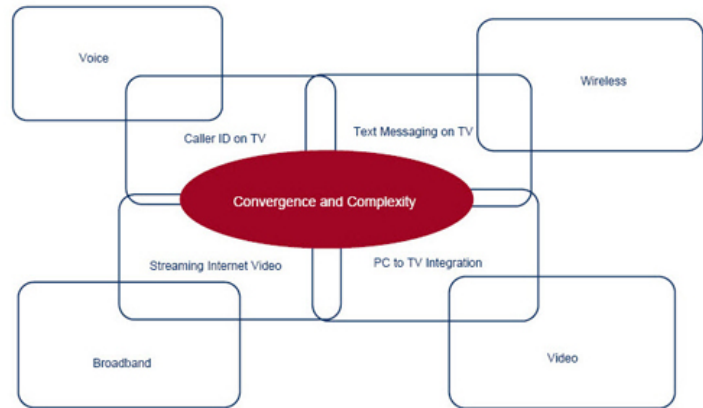
Why not? It is the next step for our kids. Their data bills are bigger than their actual phone bills. Pay-for-play people and service providers see big bucks with online, on-the-go TV. Throw in 3D and you use even more bandwidth!

This hasn't escaped the watchful eyes of network backbone supplier Cisco. They see video (all types) as their next big frontier. They already have their war chest open to buy strategic video acquisitions. By CES 2010 they may have enough data, voice, visual parts pulled together to actually keep their booth on the show floor. That will make Shapiro happy. Cisco's Chambers has a good point. 3rd Screen - Communications and entertainment have become just data.

Come Together

For mobile phone service provider's content is content. The digital bits can be phone calls, IMs, text messages, photos, music, movies or TV shows. Now if they can be sensible with the pipeline charges we'll be ready to go. Source - IDC

While a lot of folks have learned to move smoothly across the three screens we just haven't been that bright. We like a cellphone to call folks. We can't text or IM so that anyone can read what we say (they usually call up and say what???)



We like our cameras for pictures/video. We like the idea of the cheapie netbooks even though we've heard the return rate is "high." We just aren't keen about Google and other search engine/access points tracking every click we make and using that information to their advantage.

It's bogus dude!!!!

This year some computer folks got the message that there was a need for a netbook size system but one that was a real computer.

Real, Little Computer - We like HP and think their mini-notebook is superb (price isn't that bad!). The hightdef screen is clean, sharp. Good tactile feel on the keyboard. Compact size/weight. Decent storage capacity. Ok battery life. While the skin appeals to our wife it just isn't something we want to carry into the boardroom, down the street or whip out on the plane or train.



Her Clutch

The ultracompact HP notebook looks more like our wife's clutch purse than a serious/real computer. We like everything about it but...the looks. Don't think real men will be brave enough to carry the designer system even if they do have a purse! So we'll opt for the Vaio P system.

There were a lot of incremental nice ideas to fill in the spaces at the PC/CE event but given the cautious to conservative mood that was ok! Most agree that consumer technology sales will be off about 20 percent this year. The first six months will be the toughest. After that? Sssllllloooowwww recovery...long way from the "good old days" but recovery.

The Bright Spots

Since CEA's Shapiro is asking our new President to hold-off on the DTV switch-over it probably means enough folks haven't bought enough of the big, flat screens. Prices will be even more aggressive to move the inventory. New screens will be bundled with blu players for disc movies and internet connection for fairly decent ITV and VoD.

Cutting profits to the bone, notebooks and ultrasmall notebooks will still outshine netbook sales which will be "OK." Netbooks are fine if you use them as casual, impulse, on-the-go units. Not the thing you want to bang on all day long!

Even when you feel miserable you seem to want to capture special moments, memories so digital cameras with still/video capabilities, higher resolution, more automation, lower prices will remain pretty steady.

Home servers and media storage hubs – audio, video, photo, stuff – will see good increases this coming year because they are finally getting kinda easy to install and use.

Phone sales will remain flat to down except for sales growth in a few of the emerging countries but those certainly won't be iPhone knock-offs.

Storage – solid state, hard drive, optical – volumes will continue to increase because folks are shoving more content at us, we're making more content, we're grabbing/stuffing more stuff.

CES 2010 already looks a little brighter doesn't it?

Until then we've still got the really small shows – you know 30-50K attendees at PMA, NAB, CTIA.

Andy Marken
Santa Clara, CA 95054



Some CES impressions

From: Barry Mishkind [barry \(at\) oldradio.com](mailto:barry(at)oldradio.com)
As posted on the Broadcast Radio List [broadcast \(at\) radiolists.net](mailto:broadcast(at)radiolists.net)



I will just take a moment to share a couple of impressions from walking the CES.



1. HD Radio is not "hot" - Ibiquty was not in the Auto (North) Hall. And each time I went by the booth in Central Hall, the occupants seemed more interested in talking to themselves than anyone approaching the booth. Could it be they were getting a lot of negatives, and were avoiding people? Or was it my Press badge?
2. Internet radios are bubbling close to the top. I saw several car radios, including some that were ready for aftermarket installation. At least one company was there on Thursday night showing a "mobile hotspot" where they made the entire vehicle Internet-abled. If they get any traction and, perhaps, a major auto maker to install them, they could quickly move up the marketplace.
3. Security is a major concern, based on the number of products shown. Security of site/workplace and security of data. Whether you are concerned with timely backups or lost USB drives or incoming viral attacks from USB drives, a lot of companies are bringing some of the government solutions to the general public.
4. The "mine is bigger than yours" war on LCD screens paused this year.
5. Some really fine earphones were shown, including some that address some specific problems for broadcasters.

6. Partially as a result of the home theatre market, some new speakers and even wireless speaker systems that have superb sound are becoming more accessible.
7. The current economy was evident. The floor was noticeably quieter on the third day. The last day, at the Sands site, many vendors were packed and gone by 1:00. I headed back to the LVCC for the last couple of hours, again to an extremely quiet floor (aside from the booming car speakers!) where there was less packing, but virtually all vendors were "elsewhere."
8. The Press accommodations were among the thinnest I've seen in a long time, if ever. Any food disappeared in minutes (if you were not there quickly at 11:30, lunch was pretty much gone), it was coffee, tea or water. It looked like the afternoon cookies were those left over from the lunch boxes!
9. The three major invite shows - Digital Experience, Showstoppers and Pat Meier's Lunch at Pierros - had fewer companies displaying, but were among the best places to get information on the latest tech, as well as getting well fed.
10. The Paris Hotel ran out of lamb, and slightly dampened my dining experience.



Digital Tools

Bring HD Into Focus

By Lee Gomes, Forbes Magazine

HD sets have gotten bigger. So has the confusion about what high definition means.

I appreciate that they may have other things on their minds, but as a favor to those of us who just got big TV sets for Christmas, Harry Reid and Nancy Pelosi could do worse than to quickly pass and send to the President the "Video Bit Rate Full Disclosure" law that I am about to propose.

We need the law because when it comes to "high-definition" TV, there is currently no truth in advertising. Consumers have been forced to learn a passel of new technical terms--MPEG-4, 1080p and Blu-ray--but none of those says anything about the factor that is the most important determinant of video quality: the bit rate at which it was encoded.

As a result, when you settle in front of your new 50-inch plasma set to watch what was billed as a 1080p Blu-ray HD movie, you might still end up seeing the telltale signs of bad video encoding. There might be checkerboard like blocks of solid color in what was supposed to be a murky underwater scene. A gray sky might show "banding," giving it the look of a topographic map. Fast-moving objects in action scenes might take on a bit of haze, known in the trade as mosquitoes.

You might not notice them if you are using a laptop or an older, smaller set to watch the movie. But switch to a big new set and the image can be so disappointing that sometimes you'd rather not watch the movie at all.

The basic problem here can be easily grasped by anyone who has ever ripped a music CD. If you encode an MP3 at a low bit rate, 96 kilobits a second, say, you won't get very good sound quality. But you'll end up with very small files, which can be transmitted very quickly and then piled on to a hard drive. Boost the bit rate to 320 kilobits per second and the music will sound much better, but it won't be as easy to transmit or store.

Anyone trading MP3 files knows to always ask the bit rate at which they were encoded. It's time to apply the same principal to video.

Here's a sense of the range. Most well-packaged Blu-ray movies transmit data at an average rate near 25 megabits per second. For some scenes, like the hospital explosion in *The Dark Knight*, that figure might briefly go as high as 40 megabits per second. In terms of picture quality, this is as good as home video gets right now, and those are the numbers you need to hit to get it.

Sadly, nearly all of the "high-definition" Internet movie services gaining in popularity, such as Blockbuster, iTunes or Vudu, are at a fraction of those speeds, because they have been encoded at lower bit rates in the first place. These videos might look fine on your laptop while you're sitting in bed, but watch them on your big TV and you'll see flat, fuzzy images and chopped-up blocks of color instead of smooth gradations. (For a quick demo of these inadequacies, hook up a computer to a big tv and watch "HD" offerings like "Where the Hell is Matt?" from YouTube.)

It's too bad that big home-theater systems have become linked in the public mind with special-effects-intensive action movies, because their hi-res skills are needed just as badly with old-fashioned black-and-white art house fare. Think of the sea of grays in an Ingmar Bergman movie or the deep shadows of *Casablanca*. To see them in all their glory requires high-bit-rate Blu-ray, running in the 25-megabits-a-second range, every bit as much as *Iron Man*.

The proof point for this is the recent Blu-ray reissue of *The Godfather*. The color and detailing are so expert that you can see it's linen fabric on the suits everyone is wearing out in Las Vegas. The color of the blood from the horse's head is so saturated that the scene becomes as creepy as it was the first time you saw it in a theater.

Some reader might object that we can't transmit movies at 25 megabits per second because the Internet isn't fast enough, since most homes feel lucky if they get to 10% of that speed. That's not the Internet's problem, it's America that has these problems. In South Korea they can get nearly 25 megabits on their cell phones, and much more when sitting in their homes.

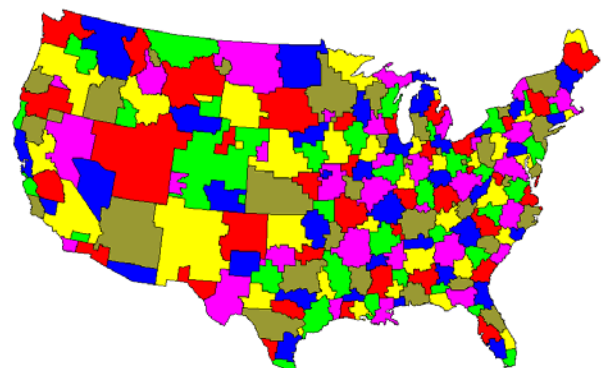
And so the fact that we have fancy television sets, but often nothing to watch on them, is yet one more reason to get upset at the low broadband speeds that Americans have to put up with. Now that I mention it, I think I have a good idea for another law.

Senior editor Lee Gomes covers technology from our Silicon Valley bureau. Visit him at www.forbes.com/gomes/.



DMA

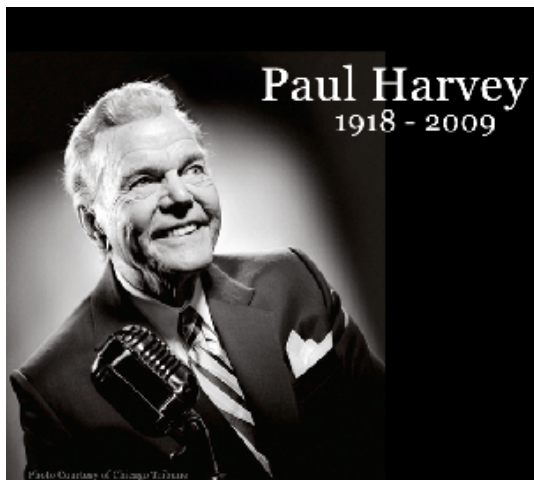
We've all seen maps of the US by county, state, etc. But what about demographic marketing area? DMAs are determined by county, not television radiation patterns. It can make for some rather strange satellite local-into-local and cable services. Check out the DMA map to the right.



Voices we all knew

In part from the Broadcasters' Mailing List [broadcast \(at\) radiolists.net](mailto:broadcast(at)radiolists.net)

Over 25 million people would “stand by” for Paul Harvey. That’s the number of loyal listeners who tune in every week to hear his skillful blend of news and views.



Paul Harvey was the most listened-to radio personality in America. His broadcasts rank among the top 10 of radio network programs and he is, even after his death, the number one personality in network radio.

Paul Harvey literally grew up in newsrooms. Born in Tulsa, Oklahoma, he made his own radio sets while still a boy. While in high school, he frequented KVOO radio until the manager finally hired him. His contributions to broadcasting and communications took him around the world and brought him full circle back to Oklahoma for induction into The Hall of Fame.

In St. Louis, Paul Harvey became the Special Events Director and newsman at KXOK, but the most important event there was his meeting the girl he always called Angel. She had come to the station for a school news program when he invited her to dinner and proposed to her that very evening.

In 1968, Angel produced the television series PAUL HARVEY COMMENTS that ran uninterruptedly for twenty years in national syndication.

The ABC Networks have been bringing Paul to national radio audiences for over 50 years on over 1000 radio stations. Among his incredible list of honors he is the recent recipient of the Presidential Medal of Honor, bestowed upon him in 2005 by President George W. Bush.

One of the original Voices of WWV Passed away

The recorded voice of Time and Frequency Station WWV has fallen silent. The announcer, Don Elliot Heald, of Atlanta, Georgia, who gave WWV its human touch passed away last month (February 2009).

Known in the broadcast world as Don Elliot, Heald had distinguished career that ranged from work at Atlanta Georgia's WSB to his automated and internationally heard WWV broadcasts on shortwave. He was also the voice of the Audichron telephone dial-in Time-Weather-Temperature service.



Heald was originally from Massachusetts, but came to Atlanta via Lakeland, Florida. He was a graduate of the University of Florida at Gainesville and began his broadcast career after graduation when he accepted a position at WRUF. In Atlanta he spent much of his spare time devoted to public service work with charities and civic clubs. Don Elliot Heald was 86.

SMPTE Engineering Director Carl Girod Passes

Carl Girod was with SMPTE for 11 years. Carl oversaw many innovative changes to how SMPTE's Engineering Department operated, and has contributed greatly to SMPTE's continued success in standards development in the motion imaging industry. The path that brought Carl to SMPTE is worthy of highlight, spanning a full career in broadcast engineering.



SMPTE Director of Publications, David Juhren, sat down with three SMPTE VIPs who worked closely with Carl. David Horowitz, who first met Carl at CBS in New York City, Mark Richer, who worked with Carl at PBS in Washington D.C., and former SMPTE Engineering Vice-President Bill Miller, who worked closely with Carl here at SMPTE.

DJ: So, how did each of you meet Carl?

David Horowitz: I first met Carl in the late 1960s—maybe the very early 1970s, when he had his own company designing and manufacturing small audio and video peripheral or terminal equipment.

Bill Miller: I believe I met Carl while he was still at PBS, but I didn't really get to know him until I became Engineering VP.

Mark Richer: I've had the pleasure of knowing Carl for about 20 years. We worked together at PBS, before he joined SMPTE.

DJ: Carl seemed to always enter into positions and organizations that were about to go through a major change in technology or how things were being done. What was it like working with Carl through all these changes?

David Horowitz: I interviewed and hired Carl around 1973-74 when I was associate director of A/V engineering at CBS. His first project at CBS was on the World's first all-ENG station conversion at KMOX-TV in St Louis, where he was responsible for video design. From there, we went on to convert WBBM-TV, KNXT, WCAU-TV, WCBS-TV, and CBS News to ENG, with Carl managing the projects for me. No matter the load, Carl was always dependable. He went on to work on many other projects at CBS.

Bill Miller: Working with Carl has always been a pleasure. During my tenure as Engineering VP, we made many changes to the Engineering Department and the Technology Committee structure. We started issuing standards on CD and on the Internet, and switched from postal mail to e-mail. We started balloting on the Web, and began bringing a server to meetings and exchanging drafts electronically. We also set up the SMPTE Registration Authority.

None of this would have happened without a lot of hard work on Carl's part. He was the one who had to set up and run the networks, find ISPs and Web hosting, develop the balloting software, administer the Registration Authority and the Federal grant that funded its startup, author and master the Standards CDs and deal with almost constant changes to the Administrative Practices as we continually tweaked them to optimize efficiency and transparency. This was all done in addition to his regular workload of administering the Engineering Department, chairing ISO TC36, and handling relations with any number

of other standards organizations, including ANSI. Carl did it all cheerfully and without complaint. I am forever in his debt.

Mark Richer: Carl was an excellent engineer and manager. He was extremely methodical and nearly unflappable. When others became frantic, Carl would always focus on the fundamental issues.

DJ: Is there anything non-business-oriented that might be fun or of interest to share?

Bill Miller: A couple of years ago, Les Paul visited our Fall Conference in New York and shared his wisdom with us. Carl wrote up his remarks for the SMPTE Motion Imaging Journal, noting that in his younger years he had owned a Les Paul guitar, earning part of his college tuition by playing it. I regret I've never had the pleasure of hearing Carl play.

DJ: I've had that pleasure, and you're right, few people really know that Carl is an accomplished musician. I found out when we were at a SMPTE Conference in Dallas, and a few of the staff were standing at this piano in some out of the way place in the hotel going over notes. Carl sat down and just started playing...we were dumbstruck. It came as a surprise, very much like his occasionally dry, yet witty, one-liners.

David Horowitz: Yes, Carl is quiet, but expresses himself with his music and sense of humor. It took me a while to get used to his style of answering questions. Rather than answering immediately, there was usually a thoughtful pause while he formulated his response, which was always on-target. It has been a pleasure to know him professionally and as a friend.

Mark Richer: I fondly remember the many lunches that I shared with Carl and the late David Sillman. Carl had a subtle, but great sense of humor.

What do you think is Carl's legacy here at SMPTE?

Mark Richer: Over the years that Carl has been at SMPTE, it has truly become an international organization. During Carl's tenure, SMPTE became a much more effective and efficient organization. Carl deserves a lot of the credit for making SMPTE the highly-respected technical organization that it is today.

Bill Miller: Carl is largely responsible for making SMPTE's transition from a paper-based organization to an electronic one. These days, employers put a premium on finding people who champion and enable change. SMPTE was fortunate to have had such an executive in Carl. I certainly don't know what I'd have done without him.

David Horowitz: Mark and Bill have covered this well from the organization's perspective. I have also seen him deal with individual members and prospective members at trade shows where his positive personality and demeanor reflected well on our organization. We are all going to miss him.

Carl will be missed.



Order of the Iron Test Pattern



For those of you don't know, here's what the **Order of the Iron Test Pattern** (OITP) is all about:



Order of The Iron Test Pattern Creed of The Order



Through snow and glitches, dropouts, ghosts and now cliff-effect, we survive - undaunted.

Dedicated to "hanging in" under all circumstances, we unsung heroes of the broadcast and cable industries are on the working end of the "show-must-go-on" button -- even if it means using our own finger in place of the fuse (ouch!).

*Our association serves no purpose other than to recognize one another for what we are - **survivors!***

The **Order of the Iron Test Pattern** didn't have their annual gathering and awards ceremonies during NAB 2008, but will defiantly have one in 2009. There were a number of reasons, but it sure was good to hear from the several survivors who asked about why we didn't.

This year your **Sagacious Pixel**, the somewhat **DUBIOUS** leader of this **dufust** group, needs ideas on who to nominate for one of our most prestigious and also somewhat dubious awards - You know the Iron this, the Iron that or the Iron Whatever award – you make it up.) Let's hear from you!!!!

For those folks who don't know, membership is free. Check out the website at: <http://www.oitp.org>

Members who are either new or who have up graded their dignity.

Robert D. Weller, P.E.
Physical Scientist, FCC
Washington, DC
[bob \(at\) weller.org](mailto:bob@weller.org)
Commodore

Richard H. Ober
Broadcast Engineer
WHDH/WLVI-TV-DT
Boston, MA
[oitp \(at\) baystatehost.com](mailto:oitp@baystatehost.com)
Admiral

Charles A. Condie
Broadcast Engineer, Retired
Oneida, TN

[Charlie.Condie \(at\) gmail.com](mailto:Charlie.Condie@gmail.com)
Admiral

William A. Aull
Broadcast Engineer
WNOK-AM-FM-TV-DT
Cayce, SC
[dnlauww \(at\) bellsouth.net](mailto:dnlauww@bellsouth.net)
General

Jeff Spencer
RF Engineer
Discovery Channel
Miami, FL
[Trrillseekers2k \(at\) yahoo.com](mailto:Trrillseekers2k@yahoo.com)
Commander



Parting Shots

By Larry Bloomfield



While traveling across the US, many of the hotels the Taste of NAB Road Show staff has stayed at either do not have easy internet access, and yet, if it is available, there are those who charge for it. Charges range from \$10 to \$15 for a 24 hour period.

Because of this, it was not difficult to make the decision to subscribe to one of the cell phone company's internet services. The cost is typically in the neighborhood of \$60 a month. As you can see, it only takes a few days for the service to pay for itself and access is where ever you get cell phone service, which is just about everywhere we travel.

With a USB device about the size of a cell phone, but about half as wide, internet access is only a "log-on" away. That's nice for one laptop, but what if you have others in your party that either want or need access?

While at CES this past January, there were several technologies that were impressive, but there was one technology that addresses and solves the problem of multiple accesses using one USB cell phone internet access device (data modem and active data plan). Cradlepoint Technology to the rescue!

Cradlepoint Tech actually has two different devices that we found most attractive: **PHS300** and **MBR1000**.

The PHS300

I've been using the PHS300 since CES and it has performed flawlessly. What makes this device attractive is it's a small (under 3" x 5"), portable (Li Ion battery powered) true plug 'n' play device that provides a WiFi hotspot almost anywhere there is cell service. It provided service for both my assistant's laptop and mine recently while on a business trip. The hotel wanted \$10 a day for each of us. It's a perfect solution for those on the go.



All that is necessary is to plug an activated USB cell phone internet access device into the PHS300, turn it on and when all three lights on the little guy are green, you can log onto the internet from any nearby (computer) laptop. No more searching for a hotspot, you are one! It's that easy!

The PHS300 router platform, powered by Cradlepoint's WiPipe™ technology, supports multiple and concurrent VPN pass-through sessions, plus encryption modes including WEP, WPA and WPA2. Having used this device now for nearly two months, I can say that you can confidently access the Internet and share your connection with your colleagues nearly anywhere; on the road, in the office or at home. MSRP \$179.99

The MBR1000

The features available with most routers over lap considerably. It's the functions features and benefits that are different that should be looked at when selecting one for you facility. The CradlePoint MBR1000 features start where other routers leave off.

Cradlepoint aptly describes their MBR1000 as a robust 802.11N router with 3G failover capability. What this means is that it has both an Ethernet port and a USB port, like its little brother, the PHS300. (This product requires a 3rd party data modem and active data plan for full functionality through the USB port.) Talk about back up.

The MBR1000 is ideal for small office/home office, temporary and remote enterprise environments where continuous, always-available connectivity is needed or desired. Talk about your ultimate WiFi device. The built-in failover feature, automatically switches from wired to wireless networking when the primary ISP service is disrupted. Once service is restored, the MBR1000 will automatically failback to the primary ISP without interruption to users. The net result is that you're ALWAYS connected.



Also like its little brother, the PHS300, the MBR1000 is powered by Cradlepoint's WiPipe™ technology. Additional features, such as load balancing and SNMP are also included, requiring minimal set up and maintenance. No software to load means no IT interaction is necessary and you'll be up and running in minutes.

The MBR1000 comes standard with top security features like, multiple and concurrent VPN pass-through sessions, encryption modes including WEP, WPA/WPA2/Enterprise and a firewall preventing unauthorized use of your connection.

We've had an MBR1000 installed and working here in our offices also since CES. It is worth every penny of the MSRP of \$249.99

So

What do you think?

The opinions expressed herein are those of the individual authors and do not necessarily reflect the opinions or positions of their friends, employers, associates or publishers of the Tech-Notes. Material in this edition may be used with proper attribution and notification.

Note: Some of the material in this edition was gleaned from one or more of the following internet mailing lists: broadcast@radiolists.net, radio-tech@broadcast.net, opendtv@freelists.org, TV-tech@broadcast.net.



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