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### Editor's Comments

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Yes it has been a while since we've put out an edition. Sorry about that. It has been our intention to publish an edition about every month. This time it's been over three months since we last "went to press" and there's a good chance it may be that long before we get the next edition out. As my father used to say, "The road to hell is paved with good intentions." Well we've got a freeway started.

At the risk of making up excuses, it isn't easy to cull through the plethora of releases and other stories and come up with things that are educational, useful, interesting and, in some cases, unusual that you are not already aware of while we're traipsing across the country doing the Road Show. In any even, please accept this as our attempt to fill a need by providing what your editors and publishers have gathered together for your edification.



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## The Road Show - A Taste of NAB 2005

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To date we have traveled over twelve thousand miles, done the presentation at thirty-two venues with a total of seven hundred fifty in attendance. We've received one hundred e-mails commenting on our efforts, to date, and only one of which was negative. You can see the comments at: <http://www.tech-notes.tv/2005/2005-2.htm>.

Our efforts were streamed over the internet while we were in Miami. That event was made possible and saved on DVD (for our information and education) thanks to the efforts of long time friend and professional associate Rod Stumhofer.

The smallest attendance, to date, at any one venue was ten and the largest was forty-four. Nearly every one who attended has asked us to return next year and was grateful for our efforts this year. We even received an e-mail from one SBE chapter saying they wanted to book us for the next two years.

During the Road Show we received a phone call from Keith Kintner, CPBE, CBNT, with SBE's national offices, informing us that we've been selected by the Society of Broadcast Engineers as educator of the year for 2004 for our efforts with last year's Road Show, A Taste of NAB 2004 and these Tech-Notes. Last year we only did forty-eight venues.

The initial efforts to form the schedule for this year's Road Show began last year in October when we contacted various SBE Chapters and SMPTE Sections across the country and ask them if they'd like us as a program. Those who gave us a positive response were set up on an itinerary that would take us on a travel loop down the west coast, across the southern states, up the eastern United States into New England then back across the US covering the more northern regions. Avoiding bad weather was a definite concern. It turned out that we got seventy-four positive responses in that initial query.

In January of this year, we let our various contacts across the country know where they'd fit into our schedule. We also let them know that if our schedule and their regularly scheduled meeting dates coincided, it would be purely by chance. For us to make our schedule fit each chapter's or section's regular meeting date would be next to impossible. Most all understood. We also asked each SBE chapter to make our event an official meeting so it would count toward each member's recertification. We also said that where and at what time could be arranged as we got closer to doing their venue. So far this is working OK. To date, we have only had to remove three locations from our schedule: San Antonio, TX, Jacksonville, FL and Kansas City, KS. There is always that possibility there will be more who have committed and then, for one reason or another, bow-out, but we hope not. The positive responses we've gotten to date tell us this is a well worthwhile educational presentation, some of which can not be obtained elsewhere. Our Itinerary is at: <http://www.tech-notes.tv/2005/2005-2.htm> So you many be?

### **Different Views of Consumer Group DTV Push**

The push made last week by consumer groups to get Congressional support for viewers during the digital TV transition generated different - and interesting - responses from those inside the Beltway.

Recently, the Consumers Union and the Consumer Federation of America suggested the government should help defray the costs some TV viewers may encounter if they stick with their analog TV set after the anticipated switch. The groups said 39 percent of U.S. households have at least one TV relying solely on off-air broadcasting. And without a converter box, which they estimated to cost \$50 a piece, those TVs will go dark following any federally mandated hard date for the transition to digital television, the groups said.

Obviously, broadcasters were happy with the consumer group push. "We're pleased the Consumers Union and Consumer Federation of America survey reinforces the findings of both the NAB and the GAO," said Edward Fritts of the National Association of Broadcasters.

"We expect Congress will pass a DTV bill this year with a hard date for turning off analog television with minimal consumer disruption. NAB's priority continues to be the prevention of cable companies from blocking consumer access to local TV programming," he said.

The Consumer Electronics Association and its president and CEO, Gary Shapiro, weren't impressed with the consumer group stand. Shapiro said the survey appears to assume that any TV not connected to cable or satellite is connected to a broadcast antenna.

The CEA chief said, "A minimum of 31 million sets are not connected to broadcast antennas and are used exclusively for video games, DVDs or other purposes. For this reason, the CU (Consumers Union) and CFA (Consumer Federation of America) survey appears to significantly overstate the number of televisions used to view OTA (over-the-air) broadcasting."

Congress is working on legislation that would shut off analog TV broadcasts in January 2009.

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### **Chuck Pharis' Legacy TV Cameras do the 50th anniversary of Disneyland**

In 1955 Walt Disney, Art Linkletter, Ronald Regan, and Fess Parker opened Disneyland live on ABC TV in black & white. They used RCA TK-30A cameras.



Disney asked Pharis to re-create the opening with a working RCA TK-30A camera. Pharis also brought along a TK-31 too, “as it made a better picture.”

YES! Art Linkletter is still alive, and going strong at 93! He loved being on the same camera 50 years later in black and White. Pharis says: “It was an honor to get a photo with him! My camera was also used on Good Morning America!” The lady on the camera was Robin Roberts.



There were over 30 color cameras there that week, but only one black and white camera. They cut it in and out of the shows to demonstrate how the pictures looked in the “old days”.

Pharis tells us that he’ll put some of the photos of this event on his website.

[www.pharis-video.com](http://www.pharis-video.com)



### **UCLA Researchers Capture, Digitize Signals at 1,000 GHz Sampling Rate**

While many broadcast engineers would be delighted to have a digital oscilloscope with a 1 GHz sampling rate, researchers developing defenses against energy pulse weapons and scientists studying particle physics need faster sampling rates. Professor Bahram Jalalai and graduate researcher Yan Han at UCLA's Henry Samueli Schools of Engineering and Applied Science have developed a single shot digitizer that works at a one-pico second intervals. What I found interesting is the device uses an optical time-dilation processor to slow the event to the point where it can be applied to a conventional electronic digitizer. Professor Jalalai explained the process. "Imagine you have a flat rubber band and you draw an arrow on it. The arrow's length reflects the duration of the event. When you stretch the rubber band, the arrow is elongated, meaning that the event now occurs over a longer time--in other words, the event is slowed down in time. With our technique, a laser pulse is the rubber band. An optical modulator writes the ultra-fast waveform onto the optical pulse. The composite signal is then slowed down in a dispersive optical device, such as a chain of optical resonators made on a silicon chip. A photo detector then converts everything to the electrical domain and gives a slowed-down copy of the original electrical waveform."

This time-elasticity can also be used to perform time compression and time reversal, which UCLA said is useful in advanced radar systems.

At least two companies are investigating commercial applications for the technology. Salime Boucher, president of [RadiaBeam Technologies LLC](http://www.radiabeam.com) said, "We see a market for

this breakthrough with research laboratories involved in ultra-fast phenomena and transient events, as well as for future applications by engineering and technology companies in the communication, chemical engineering and life science sectors." [Aerospace Corporation](#) is considering use of the time stretch A/D converter for potential space applications. "Direct digitization of signals in the 10 to 100 GHz band and beyond offers incredible opportunities for new applications in communications, spectroscopy and radar. Besides breaking the tera-sample-per-second rate barrier, the results reported by Jalali's group at UCLA beat other photonic analog-to-digital converter technologies by about a factor of 10 in the key figure of merit, bit rate times number of quantization levels," said George Valley, senior scientist at Aerospace.

For more information on this interesting technology, see the article [UCLA Researchers First to Capture Elusive Lightning Quick Waveforms](#).



### **Pumping Gas Into an ENG Van**

There are only two states where motorists are not permitted to pump their own gas: Oregon and New Jersey. As you can no doubt imagine, this would come back to bite someone where it hurts.

A local TV reporter relayed this story - I took the names out but they know who they are.

They were "on our way to our PM story in Salem last night and on the way we stopped at the Shell/TA truck stop off the Donald exit. After giving the gas station attendant the card to gas up the live truck we both headed inside to pick something up to eat.

On our way back out, the attendant was rushing in to get us with a white faced panic look. "Ummm...we need you to come outside," he said. "I think we put the gas in the wrong hole."

Neither (photographer) nor I had any idea of what he was talking about. As we rounded the live truck there was an assistant manager on her hands and knees looking at the bottom of the van that's trickling gas from everywhere. "I just hope we didn't damage anything," she says with the same panicked tone.

We still have no idea what is going on. The attendant, who told us later it was his first day, then pointed to where he put the gas. Not in the gas tank opening. He had unscrewed the silver cap that covers the opening leading straight into the interior of the live van. The opening that's used from time to time to run cable from the inside of the truck to the outside. When it finally hit us what he had done, we ran to the sliding door of the van, whipped it open and gas came dumping out as if it were a flooded basement. (The photographer) quickly grabbed his/her camera bag that because of its position in the van was actually turned into a makeshift "gas tank". When she/he (began) lifting the camera out at least a gallon of gas splashed out with it.

In his first day jitters, this 16 year-old, managed to pump a little more than 10 gallons into the inside of unit 20. The fire department was called, the truck became a HazMat scene, thousands of dollars in damage to every piece of equipment inside, including one Jones of New York suit coat. The poor kid sat with his head in his hands...looked up at (the photographer) and said, "Do you think I'm going to have to pay for all of this myself?" But by far the best statement of the day came from the assistant manager when she asked (the photographer), "How much gas did he pump? Because I won't charge you for that. That's gas is free."

The bottom line is that this new ENG truck was written off by the insurance company as a total loss. When asked, the Chief Engineer said to me: "Why couldn't it have been one of our oldest trucks."



### **You Can't Tell the Players Without a Program**

The sign painters were out just prior to NAB this year, as three big names in the broadcast industry rushed through brand name changes before the big show.

Thomson Grass Valley has fallen back to the simpler name of Grass Valley. To those engineers brought up on 1600 and 300 switchers, what's all the fuss about? Thomson have acknowledged the customer enthusiasm for one of its most-recognized strategic brands, so is changing the name of its Broadcast & Media Solutions business activity to Grass Valley. Known for creating the Grass Valley broadcast and film production products, the division also produces video compression and networking, and professional audio video products and services.

Meanwhile Discreet, formerly Discreet Logic, and now the Canadian media division of Autodesk, takes on the name of their parent company to become Autodesk Media and Entertainment.

Not to be outdone, the systems integrators are in on the changes. A.F Associates is now to be Ascent Media Systems & Technology Services. A. F. Associates were already part of Ascent Media Network Services and have east and west coast facilities in the USA plus a center in London, England.



Lightning Hits Portland's Skyline Tower Back In May of this year.



## News Highlights

(Editor's Note: During the Road Show we will be using this abbreviated format. Thanks to Lee Wood for his help in this area)

According to our calculations, we have about 528 Days until the Scheduled End of Analog Television Broadcasting, unless Congress gets off it's you know what and says differently.

\* FCC to Review Media Ownership (Again)

<<http://www.radioworld.com/dailynews/one.php?id=7340>>

\* NBC Eyes Merging Network & Cable News

<<http://www.nypost.com/business/25588.htm>>

\* Media Turns to a Wireless Generation

<<http://www.smh.com.au/news/business/media-turns-to-a-wireless-generation/2005/06/29/1119724696950.html>>

\* KCRW Podcasts Increase Tenfold With Launch Of iTunes 4.9

<<http://www.radioink.com/HeadlineEntry.asp?hid=129433&pt=todaysnews>>

\* The magic elixir of "Playing What We Want"

<[http://www.radiomarketingnexus.com/2005/06/the\\_magic\\_elixi.html](http://www.radiomarketingnexus.com/2005/06/the_magic_elixi.html)>

Sci-Fi Of The Mind- War Of The Worlds Was A Memorable 1938 Radio Broadcast

<<http://www.radioink.com/HeadlineEntry.asp?hid=129437&pt=todaysnews>>

\* FCC Lauds Self on Broadband Adoption

<<http://www.dslreports.com/shownews/65302>>

\* Surviving the Digital TV Shift

<[http://www.newshub.com/rd.php?nh\\_id=067debf4346f63292dbc24e9da39b3a6](http://www.newshub.com/rd.php?nh_id=067debf4346f63292dbc24e9da39b3a6)>

\* Commission to Revisit Must Carry

<<http://www.tvtechnology.com/dailynews/one.php?id=3070>>

\* Senators Introduce Ratings Legislation

<[http://www.billboardradiomonitor.com/radiomonitor/news/business/leg\\_reg/article\\_display.jsp?vnu\\_content\\_id=1000972778](http://www.billboardradiomonitor.com/radiomonitor/news/business/leg_reg/article_display.jsp?vnu_content_id=1000972778)>

Report- FCC Indecency Fines Stopped in Late 2004

<[http://billboardradiomonitor.com/radiomonitor/news/business/leg\\_reg/article\\_display.jsp?vnu\\_content\\_id=1000973205](http://billboardradiomonitor.com/radiomonitor/news/business/leg_reg/article_display.jsp?vnu_content_id=1000973205)>

FCC Seeks Comments on Draft Strategic Plan

<[http://beradio.com/currents/radio\\_curren\\_ts\\_070405/index.html#fcc](http://beradio.com/currents/radio_curren_ts_070405/index.html#fcc)>

Crawford Boosts HD Pledge

<[http://billboardradiomonitor.com/radio\\_monitor/news/business/digital/article\\_display.jsp?vnu\\_content\\_id=1000974019](http://billboardradiomonitor.com/radio_monitor/news/business/digital/article_display.jsp?vnu_content_id=1000974019)>

\* TV bites back at Radio Ad Effectiveness Lab

<[http://www.radiomarketingnexus.com/2005/07/tv\\_bites\\_back\\_a.html](http://www.radiomarketingnexus.com/2005/07/tv_bites_back_a.html)>

\* Podcasting Users To Approach 60 Million U.S. Consumers By 2010

<<http://www.radioink.com/HeadlineEntry.asp?hid=129499&pt=todaysnews>>

\* RadioTime.com Looking To Be The “TiVo Of Radio”

<<http://www.radioink.com/HeadlineEntry.asp?hid=129496&pt=todaysnews>>

TV Technology At Edge Of Legal Frontier

<[http://news.yahoo.com/news?tmpl=story&cid=581&e=2&u=/nm/20050706/tc\\_nm/slingbox\\_dc](http://news.yahoo.com/news?tmpl=story&cid=581&e=2&u=/nm/20050706/tc_nm/slingbox_dc)>

FCC Puts Broadcast Ownership On July Agenda

<[http://www.billboardradiomonitor.com/radiomonitor/news/business/leg\\_reg/article\\_display.jsp?vnu\\_content\\_id=1000975630](http://www.billboardradiomonitor.com/radiomonitor/news/business/leg_reg/article_display.jsp?vnu_content_id=1000975630)>

\* DTV Station Status Per FCC CDBS

<<http://www.tvtechnology.com/dlrf/one.php?id=928>>

ATSC Tuner Mandate Takes Effect

<<http://www.tvtechnology.com/dlrf/one.php?id=922>>

Mergers No, Digital Yes

<[http://www.billboardradiomonitor.com/radiomonitor/news/business/digital/article\\_display.jsp?vnu\\_content\\_id=1000976851](http://www.billboardradiomonitor.com/radiomonitor/news/business/digital/article_display.jsp?vnu_content_id=1000976851)>

\* NAB Says Broadcasters Will Support DTV Transition Bill

<<http://www.tvweek.com/news.cms?newsId=8139>>

\* NAB Blasts EchoStar Comments in SHVERA Proceeding

<<http://www.tvtechnology.com/dlrf/one.php?id=929>>

\* FCC Releases 2005 Regulatory Fee Schedule

<<http://www.tvtechnology.com/dlrf/one.php?id=930>>

A surprise at the FCC this morning – Chairman Martin pulled the Notice about re-writing the ownership rules.

<<http://www.insideradio.com/topheadline.asp?ID=349750&PT=Today%27s+Top+Stories>>

\* Commissioners Pounding Out Ownership Proposal

<[http://www.radioandrecords.com/Newsroom/2005\\_07\\_14/commissionerspounding.asp](http://www.radioandrecords.com/Newsroom/2005_07_14/commissionerspounding.asp)>



A debate on federal funding for public broadcasting  
<<http://www.reclaimthedia.org/stories.php?story=05/07/14/5083887&PHPSESSID=6c8e507beb62ae5204c171069b861753>>

XM buys company to expand into video  
<[http://news.com.com/XM+buys+company+to+expand+into+video/2100-1041\\_3-5788221.html?tag=nefd.top](http://news.com.com/XM+buys+company+to+expand+into+video/2100-1041_3-5788221.html?tag=nefd.top)>

XM is not a "Satellite Radio" company  
<[http://www.radiomarketingnexus.com/2005/07/xm\\_is\\_not\\_a\\_sat.html](http://www.radiomarketingnexus.com/2005/07/xm_is_not_a_sat.html)>

Time Warner Cable IPTV Trial  
<<http://www.dslreports.com/shownews/65514>>

Is TV's future on Web?  
<[http://www.newshub.com/rd.php?nh\\_id=50ac0ccfd097f4edd41964a7c3133d4c](http://www.newshub.com/rd.php?nh_id=50ac0ccfd097f4edd41964a7c3133d4c)>

Forgent sues cable companies over DVR patent  
<[http://news.com.com/Forgent+sues+cable+companies+over+DVR+patent/2100-1047\\_3-5788649.html?tag=nefd.top](http://news.com.com/Forgent+sues+cable+companies+over+DVR+patent/2100-1047_3-5788649.html?tag=nefd.top)>

Summary of DTV Applications Filed  
Updated to July 18, 2005  
(Federal Communications Commission)  
<http://www.fcc.gov/mb/video/files/dtvsum.html>

Top 10 Markets' DTV Status Updated to July 18, 2005  
(Federal Communications Commission)  
<http://www.fcc.gov/mb/video/files/dtvstat.html>

Top 11-30 Markets' DTV Status  
Updated to July 18, 2005  
(Federal Communications Commission)  
<http://www.fcc.gov/mb/video/files/dtvstat11.html>

Breakdown Chart of DTV On-The-Air Stations Updated to July 18, 2005  
(Federal Communications Commission)  
<http://www.fcc.gov/mb/video/files/dtvonairsum.html>

DTV Stations Presently On-The-Air (783 Stations) Updated to July 18, 2005  
(Federal Communications Commission)  
<http://www.fcc.gov/mb/video/files/dtvonair.html>

Digital Television (DTV) Stations with Active Special Temporary Authorities (STAs) to Operate (742 Stations) Updated to July 18, 2005  
(Federal Communications Commission)  
<http://www.fcc.gov/mb/video/files/dtvstats.html>

Martin's Must-Carry Plan on Hold  
FCC chairman Kevin Martin is not expected to revive his digital-TV-carriage proposal in time for the agency's Aug. 4 public meeting.  
(Multichannel News)  
<http://www.multichannel.com/article/CA626916.html?display=Breaking+News&referral=SUPP>

20050720 Wolfsson's Wednesday Words (Mark's Monday Memo)  
(Digital Television)  
<http://www.digitaltelevision.com/mondaysmemo/mlist/frm02192.html>

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Fritts appeals to Congress for multicasting support on cable Cable association leader Kyle McSlarrow says doing so would be harmful to consumers.

(Broadcast Engineering)

[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#](http://broadcastengineering.com/newsletters/hd_tech/20050720/#)

Shapiro tells committee 'disenfranchisement' claims are exaggerated The CEA chief told lawmakers that a firm deadline for cessation of the analog TV transmission would foster innovation.

(Broadcast Engineering)

[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#shapiro](http://broadcastengineering.com/newsletters/hd_tech/20050720/#shapiro)

DTV: Industry Reaction Is Mixed To Limited Availability Of Tuners

(National Journal)

<http://www.njtelecomupdate.com/lenya/telco/live/tb-IBKL1121892013653.html>

DirecTV, Viacom ink new carriage deal (Los Angeles, CA Business)

[http://www.bizjournals.com/industries/high\\_tech/cable\\_tv\\_radio/2005/07/18/losangeles\\_daily32.html](http://www.bizjournals.com/industries/high_tech/cable_tv_radio/2005/07/18/losangeles_daily32.html)

Long-Term Pact for Viacom, DirecTV Viacom and DirecTV have reached a long-term carriage agreement.

(Multichannel News)

<http://www.multichannel.com/article/CA626998.html?display=Breaking+News&referral=SUPP>

Viacom, DirecTV Sign Carriage Pact DirecTV and Viacom have hammered out a long-term carriage agreement.

(MediaWeek)

[http://www.mediaweek.com/mw/news/cabletv/article\\_display.jsp?vnu\\_content\\_id=1000988584](http://www.mediaweek.com/mw/news/cabletv/article_display.jsp?vnu_content_id=1000988584)

Viacom and DIRECTV Sign Long Term Carriage Agreement

Deal Includes Carriage for MTV Networks Services, BET, CBS, UPN and the Viacom Television Stations Group (PR Newswire)

<http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/07-20-2005/0004070953&EDATE=>

Viacom Renews DirecTV Deal [Paid Subscription Required]

MTV Networks and CBS have renewed their carriage deals with DBS service DirecTV, securing slots for a couple of new cable services, plus HD feeds of some CBS and UPN broadcast stations.

(Broadcasting & Cable)

<http://www.broadcastingcable.com/article/CA628102?display=Breaking+News>

HDNet Shuttle plans stay on the pad HDNet said it will stay the course, and provide live coverage of the launch of Space Shuttle Discovery "no matter how long the delay."

(CED Magazine)

<http://www.cedmagazine.com/cedailydirect/2005/0705/cedaily050720.htm#5>

Discovery HD to present high-def hurricanes

Discovery HD's "Risk Takers: Hurricane Hunter" is the first major television production to feature a professional storm chaser shot in HD.

(Broadcast Engineering)

[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#hurricane](http://broadcastengineering.com/newsletters/hd_tech/20050720/#hurricane)

Top 10 HD Non-Sports Shows

(Sports Illustrated)

[http://sportsillustrated.cnn.com/2005/writers/jacob\\_luft/07/20/nonsports.shows/index.html](http://sportsillustrated.cnn.com/2005/writers/jacob_luft/07/20/nonsports.shows/index.html)

Sony Steps Up For Nascar HD [Paid Subscription Required]  
NASCAR events on TNT, NBC, and Fox are all being televised in high definition this year so it's only fitting that Sony Electronics, the leading maker of HD production gear, steps in and actually sponsors.

(Broadcasting & Cable)

<http://www.broadcastingcable.com/article/CA626964.html?display=Breaking+News>

Big Studios Takes On HBO's "Boxing After Dark"

Package produced in 1080i HD

(Broadcast Newsroom / DTV

Professional / HDTV Buyer / Digital Video Editing)

- <http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=33587&afterinter=true>
- <http://www.dtvprofessional.com/articles/viewarticle.jsp?id=33589>
- <http://www.hdtvbuyer.com/articles/viewarticle.jsp?id=33587>
- <http://www.digitalvideoediting.com/articles/viewarticle.jsp?id=33587>

MSTV, NAB extend set-top box RFQ deadline

The RFQ includes the target parameters and specifications for a prototype terrestrial digital converter box.

(Broadcast Engineering)

[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#rfq](http://broadcastengineering.com/newsletters/hd_tech/20050720/#rfq)

Digital Terrestrial TV Set Tops Ready For Blast Off

(HiddenWires)

<http://hiddenwires.co.uk/resourcesnews2005/news20050720-03.html>

Retail value of digital terrestrial STBs to skyrocket, says report

In the United States, USDTV is tying together the bit streams of up to six local digital terrestrial TV stations and offering a low-cost alternative to cable TV services.

(Broadcast Engineering)

[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#retail](http://broadcastengineering.com/newsletters/hd_tech/20050720/#retail)

JVC Selects ATI Digital TV Technology (DTV Professional / HDTV Buyer)

<http://www.dtvprofessional.com/articles/viewarticle.jsp?id=33578>

<http://www.hdtvbuyer.com/articles/viewarticle.jsp?id=33578>

LG flat panel display products highly praised in US and Germany

(Strategy)

<http://www.strategy.com/inews.asp?id=20050721133317>

iSuppli: Thomson moving away from CRT TVs, but CRTs sticking around (iSuppli via DigiTimes.com)

<http://www.digitimes.com/displays/a20050721PR200.html>

Nice Shoes Imagery in HD Spots for Aquos LCD TVs

(Digital Video Editing)

<http://www.digitalvideoediting.com/articles/viewarticle.jsp?id=33577>

The Ritz-Carlton Signs With LodgeNet for HDTV Solution

LodgeNet Offerings Include LodgeNet sigNETure TV Platform and sigNETure HDTV for High-Definition Broadcast, Satellite and Video-On-Demand Programming  
(PR Newswire)

<http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/07-21-2005/0004072020&EDATE=>

Growing mobile HD production requires focus on training

The new vice president of engineering for National Mobile Television identifies training and support as top priorities as he assumes his new role.

(Broadcast Engineering)  
[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#kemps](http://broadcastengineering.com/newsletters/hd_tech/20050720/#kemps)

LMG Relies on Snell & Wilcox Kahuna to Build HD Truck

(Broadcast Newsroom / HDTV Buyer)  
<http://www.broadcastnewsroom.com/articles/viewarticle.jsp?id=33589>  
<http://www.hdtvbuyer.com/articles/viewarticle.jsp?id=33589>

Link Research to launch HD wireless camera system

The company has added a new HD receiver to the prototype transmitter displayed at NAB2005.

(Broadcast Engineering)  
[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#link](http://broadcastengineering.com/newsletters/hd_tech/20050720/#link)

Ross Video offers multi-definition terminal equipment

The new RossGear MD products complement the Synergy MD line of switchers.

(Broadcast Engineering)  
[http://broadcastengineering.com/newsletters/hd\\_tech/20050720/#ross](http://broadcastengineering.com/newsletters/hd_tech/20050720/#ross)

Shooters Post & Transfer Adds Sony HDCAM SR Capabilities To Its Facility  
First HDCAM SR Facility in Philadelphia Offers Digital Intermediate Solution for Feature Filmmakers

(Kensei News & Information Services)  
[http://www.kensei-news.com/cetc/publish/broadcast/article\\_31413.shtml](http://www.kensei-news.com/cetc/publish/broadcast/article_31413.shtml)

Image is everything [UK]

A growing number of Britons are investing in flat-screen TVs that are compatible with High Definition TV (HDTV) transmissions. But until Sky debuts its HD service in the summer of next year, all they will be viewing are standard definition pictures.

(Guardian)  
<http://www.guardian.co.uk/online/story/0,3605,1532401,00.html>

CSA defines French DTT roll-out [France]

(Advanced Television)  
[http://www.advanced-television.com/2005/news\\_archive\\_2005/July18\\_July22.htm#csa](http://www.advanced-television.com/2005/news_archive_2005/July18_July22.htm#csa)

Japan to test terrestrial digital TV recasting via Internet [Japan]

(Kyodo News via Yahoo News)  
<http://asia.news.yahoo.com/050721/kyodo/d8bfj9800.html>

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Japan may allow digital TV on fibre network-source  
(Reuters via Yahoo News)  
<http://asia.news.yahoo.com/050721/3/24aq5.html>

Japan mulls DTT via fibre optic cables (Digital TV Group)  
<http://griffin.dtg.org.uk/news/news.php?class=countries&subclass=0&id=1024>



## **Information & Education**



### **Digital Television Broadcasting in the Americas**

By Robert Graves, HDTV Magazine

Robert Graves is the Chairman, ATSC Forum and Member, U.S. Delegation to PCC.II. Prior to assuming his ATSC Forum duties Robert Chaired the ATSC (Advanced Television Systems Committee) and prior to that was the Washington representative for AT&T and their participation in the Grand Alliance. Robert joins our HDTV Magazine roster of authorities to help clarify the HDTV movement to those still finding confusion with it. The ATSC Forum was formed to promote the use of the ATSC standard beyond our domestic markets. \_Dale Cripps

Already a vital part of the region's communications and information infrastructure, during the next decade the national television broadcasting systems throughout the Americas are expected to be upgraded from analog to digital technology, keeping pace with the technological advances that are reshaping all types of global telecommunications. The transition to digital terrestrial television (DTT) broadcasting is a revolutionary change that will dramatically affect the future of free over-the-air television in the Americas. With digital technology, DTT allows each broadcaster to provide a huge wireless information pipeline into every home, delivering 20 million bits per second through each 6 MHz broadcast television channel. This capability not only enables the delivery of dramatically sharper images and CD-quality surround sound, it supports a much greater quantity and diversity of TV programs, plus a whole new array of information services, including interactive capabilities that will help to bring the benefits of the information age more fully and more uniformly to all citizens in the Americas.

The U.S. has led the way in the introduction of DTT broadcasting. After a nine-year process in which the technology was developed and competing systems were evaluated, the U.S. Federal Communications Commission adopted the ATSC Standard in 1996 and commercial DTT broadcasts began in ten cities in late 1998. Now, almost seven years later, there are 1,500 stations on the air in 211 cities reaching virtually all television households with at least one digital signal. 90% of television households have access to five digital signals and some large cities have more than 20 digital signals on the air.

High-definition television (HDTV) remains the centerpiece application of DTT broadcasting in the U.S., with most prime-time programming and steadily increasing amounts of sports and movies being offered in HDTV. HDTV programming is not only available via terrestrial broadcast, but also via cable and satellite delivery, providing a critical mass of programming that is making the sales of HDTV receivers take off like a rocket. As of the end of 2004, 16 million DTV products worth \$26 billion had been sold, the vast majority of which were HDTV products. Sales in 2004 were approximately equal to the cumulative sales in all prior years, and 2005 sales are projected to double those of 2004.

The prices of ATSC products continue to fall very rapidly, with HDTV set-top boxes as low as \$200, HDTV monitors as low as \$400, HDTV integrated receivers as low as \$500, and integrated standard-definition (SDTV) receivers as low as \$300. Indeed, the prices of HDTV receivers are rapidly converging with those for analog TVs, and large screen analog TVs have mostly disappeared from the market. My own view is that within three or four years virtually all TVs sold in the U.S. will be HD, and the prices will be no higher than those for today's analog color TVs of the same size.

HDTV is a big success in the U.S., but it is not the only success. Public broadcasters are delivering multiple simultaneous SDTV programs to help achieve their education and community service mandates, and many commercial broadcasters have added simultaneous 24-hour news or weather programs to accompany their HDTV programming. A number of new information services have also been launched, with information accompanying regular video programming. The number and breadth of these other innovative DTT applications continue to increase. (Interactive information services are especially well-developed in South Korea, where ATSC DTT broadcasts currently reach 80% of TV households, with nationwide coverage planned by the end of this year.)

Meanwhile, driven by the need to recapture and reuse valuable nationwide spectrum, the U.S. government is expanding its program to hasten the completion of the transition from analog to digital broadcasting. By 2007 virtually all TV sets sold in the U.S. are required to contain ATSC digital tuning and decoding capability, and 27 million such TVs per year are projected to be sold in the U.S. alone by that time. The tremendous economies of scale that will result from such high volumes will drive down further the prices of ATSC receivers for all countries that adopt the ATSC Standard, making DTT broadcasting affordable for all socio-economic classes throughout the hemisphere. Proposals are now before the U.S. Congress that would end analog television broadcasts by January 1, 2009, and would subsidize the purchase of an inexpensive digital-to-analog converter box for poor Americans who had not yet purchased a digital set or set-top box by that time. Such converter boxes are expected to cost \$50 or less by 2008. Thus, in the U.S., the focus has now shifted to planning for the end of the transition to DTT broadcasting.

DTT broadcasting is also moving ahead elsewhere in the Americas. In Canada, ATSC HDTV broadcasts are now on the air in Toronto and Montreal, with substantial amounts of HD programming available via cable and satellite as well. More than 50% of TVs now sold in Canada are HD-capable, with more than 1.2 million such sets sold to date.

Following six years of experimental broadcasts, Mexico formally adopted its DTT policy in July 2004 and commercial services will begin this August. Under Mexico's policy, ATSC broadcasting is to be implemented in major cities and the U.S. border region no later than 2006.

Brazil has been actively studying alternatives for DTT broadcasting for several years, and the government of Brazil has funded research into new DTT technology and enhancements that could be incorporated into whatever broadcast standard Brazil adopts. Brazil intends to make its DTT standard decision by February 2006, which may well be to adopt one of the existing DTT standards, but with several improvements and enhancements.

Argentina adopted the ATSC Standard in 1998 and broadcasters there have been conducting experimental ATSC broadcasts for several years. Broadcasters in Chile have also conducted experimental ATSC broadcasts, and have formally recommended adoption of the ATSC Standard to the government. Several other countries in the hemisphere have begun to explore their options and policies for DTT broadcasting, including Peru, Colombia, Ecuador, Venezuela, Uruguay, Bolivia, Panama, Guatemala, the Dominican Republic, and Jamaica.

CITEL has been discussing DTT broadcasting for several years through its PCC.II-Radiocommunications Including Broadcasting group. In October 2003 PCC.II adopted a resolution urging the OAS members states to implement DTT broadcasting as rapidly as local conditions permit, using a common standard throughout the hemisphere. Since that time, CITEL has been preparing a DTV Implementation Guide to explain the benefits of DTT broadcasting, and to assist OAS member states in their efforts to plan for and implement DTT, by sharing the experiences of those countries that have already undertaken significant efforts in this area.

In summary, digital television technology offers a remarkable improvement in the technical quality of television, plus a quantum increase in the quantity of television programming available, plus a revolutionary improvement in the information infrastructure of the nations that implement it. Thus, DTT broadcasting represents an immediate and effective means of promoting social inclusion throughout the hemisphere and bridging the "digital divide," so that all socio-economic segments of society can reap the benefits of this fruitful new technology. It is vital that nations throughout the Americas take steps now to bring these tremendous benefits to their citizens. Adoption of a common DTT transmission standard throughout the hemisphere will create great economies of scale that will mean more broadcast and consumer products from more suppliers at lower prices, making DTT affordable to all and hastening the transition to DTT throughout the region.

Gefen's 1x4 DVI Monitor Switcher Increases HDTV Viewing Options



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The latest trend in HDTV switchers allowed the connection of multiple video sources to one display for easy access to one of several sources. Now you can just as easily integrate multiple televisions and displays to a single source.

Gefen's new 1x4 DVI Monitor Switcher works in reverse from its traditional switchers, supporting the connection of up to four displays to one high definition video source.

It is designed to switch the video between several monitors for applications commonly used in broadcast, post-production, entertainment, retail, security and educational industries.

Users select which monitor will display the video with an IR remote control. Switching is performed with no down time and high resolutions up to 1080p and 1920x1200 are supported.

Gefen's 1x4 DVI Monitor Switcher is also HDCP (high bandwidth digital content protection) compliant and will pass through high definition video intact.

"We devised this model to augment our growing line of HDTV switchers," said Hagai Gefen, president and CEO. "It seemed the logical next step to support those audio/video systems that need to assign video to specific rooms in the home or office, or in more commercial environments such as post-production."

Gefen's 1x4 DVI Monitor Switcher (MSRP \$399) comes equipped with one DVI input, four DVI outputs and one 5v power supply. It is available to order online at [www.gefen.com](http://www.gefen.com) or through an authorized Gefen reseller.

[http://www.gefen.com/kvm/product.jsp?prod\\_id=3033](http://www.gefen.com/kvm/product.jsp?prod_id=3033)

About Gefen: Gefen provides consumer electronics and audio/video connectivity solutions with multi-platform extension, switching, distribution and conversion capabilities. Gefen is consistently the first to deliver advanced technologies for home theater, computers and other AV environments. Products support high definition digital video, analog video and digital and analog audio using various interfaces such as HDMI, DVI, dual link DVI, HD-SDI, SDI, VGA, USB, Firewire and RS-232. A selection of cabling is also available. Additional information may be found at [www.gefen.com](http://www.gefen.com).



### **DTV Training**

From: Gary Sgrignoli

Hi Everyone,

Hope you're ready for summer because - ready or not - here it is !!! The Cubs have made a modest come-back, which at least gives us some hope! And without hope, we wouldn't have anything to get shattered in September here in Chicago. But, one thing that is rock



steady is that there are more VSB seminars are on the way!!! And you can always read about them on the MSW website ([www.MSWdtv.com](http://www.MSWdtv.com)).

The DTV transition continues to accelerate with at least 1497 DTV stations on the air covering 211 markets containing about 99.95% of the TV households (90.6% of the households are in markets with 5 or more DTV signals). Behind us is the beginning of the FCC tuner mandate (100% of large screen DTV sets as of July 1, 2005 and they moved up the mid-size DTV set deadline to March 2006), the "plug & play" cable compatibility issue, the "broadcast flag" resolution (kind of ...), and the issuing of the DTV translator rules. Besides that, there is a significant increase in HD programming as well as more models of lower-cost DTV sets with integrated digital tuners on showroom floors. With the advent of the 2nd periodic review last fall setting the post-transition channel election and replication/maximization process in motion, and Congress discussing a December 31, 2008 analog "turn off" date, the last phase of the DTV transition has surely begun !

These day-long digital VSB transmission seminars have been offered around the country for the last 7 years, with more on the way. Some of the cities across the country that have hosted seminars in the past have been Chicago, Champaign (IL), Milwaukee, Indianapolis, Cincinnati, Dallas, Baltimore, Salt Lake City, Washington DC, Columbia (SC), Des Moines, Minneapolis, Denver, Albuquerque, Phoenix, Atlanta, Orlando, Philadelphia, Pittsburgh, Lansing (MI), Topeka, Boston, Manchester, New York City, Raleigh, Portland ME, Reno, San Jose, Los Angeles, San Diego, Oakland, San Francisco, Sacramento, Portland, Seattle, and Calgary (Canada). The plan is to visit new cities as well as to revisit some of the ones mentioned above.

Upcoming all-day VSB seminars this summer and fall are scheduled for:

Date: Saturday, July 23, 2005

Location: WDSU in New Orleans, LA

Time: 8:30 am to 5:30 pm

Hosts: Crescent Communications, SBE Chapter 72, and WDSU-TV

Sponsors: TBD

Date: Thursday, August 4, 2005

Location: KHUT in Honolulu, HI

Time: 8:30 am to 5:30 pm

Hosts: KHON-TV and KHET-TV

Sponsors: Evertz, Leitch, MRC, Harris and others

Date: Friday, September 16, 2005

Location: WHRO in Norfolk, VA

Time: 8:30 am to 5:30 pm

Hosts: SBE Chapter 54 and WHRO-TV

Sponsors: Cavelle/Mertz/Davis, LARCAN, MRC, Rhode & Schwarz, Whitlock Group, & others

Currently, I am setting up other summer and fall seminars, with on-going discussions with potential hosts in the following cities:

Seattle, WA (October 2005)  
Baltimore, MD (summer or fall)  
Austin, TX (fall)  
Atlanta, GA )fall)  
Raleigh, NC (fall)

As usual, the modest registration fee for these seminars covers an updated 1-1/4" thick (594-page) detailed seminar notebook as well as lunch. I've attached an announcement flyer for the Kansas City seminar for your reference, which contains contact information and general logistics. If you know anyone wanting to attend such a seminar (e.g. any local station engineers or business clients in the area), please forward this e-mail to them as well as the attached flyer.

Local TV broadcasters often host these seminars in conjunction with local broadcast organizations such as SBE and SMPTE. These seminars are meant to be "break-even" events for the hosts with the travel, shipping & speaker expenses paid by corporate sponsors, while the handout books and refreshments are covered by the very modest registration fees (often between \$45 - \$60 per person) charged to the attendees. The seminars often draw between 30 - 60 people (and sometimes more), and one SBE credit is given to SBE member towards re-certification. Also, the material in this seminar (and the new DTV measurement seminar that will join the original) will SBE members planning to take the 8-VSB Specialist Certification test that will be offered this fall by SBE. See the national SBE website for more details ([www.sbe.org](http://www.sbe.org)).

If you know of any broadcast-related groups that would want to co-host or co-sponsor any future VSB seminars in their cities, please let me know. The fall seminar schedule is currently being planned. I believe that these educational seminars are well worth the time, energy, and money to attend, especially in this last phase of the DTV transition where so many requirements are in effect for broadcasters.

Also in the planning for later this year is the creation of a new, 2nd type of VSB transmission seminar that focuses on the types of DTV measurements that are desired at transmitter sites as well as at remote field sites. Topics covered will include: power & jitter measurement theory, Tx site and remote field site measurement methodology (including FCC compliance), what parameters to measure, why they should be measured, how to measure them, and what type of equipment to use (including needed and desirable features). These new seminars will be offered this fall as well as the usual all-day seminars (which is considered a prerequisite for these new measurement seminars). They will be operated in a similar manner as the original seminars, again with corporate sponsors covering the bulk of the costs and only modest registration fees for the attendees. "Stay tuned" for more information later this summer !!!

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As the DTV transition continues to roll out, the channel election comes closer to completion, and the final date for analog shutoff comes closer to reality, let's hope that we see continued great progress as we move through 2005.

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## Features, History & Opinions

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Remember this?

**Restoring old archived vinyl disks**

From: Dave Hultsman [DHultsman5@aol.com](mailto:DHultsman5@aol.com)

Interesting item regarding all our old 45's and older 78's from the JimmyRabbit website. Thought some of you might be interested in this technique for decoding the wiggly lines on records.

+++++

So there's still hope for my K.C. & The Sunshine Band record?

By JOHN PACZKOWSKI, [\\_siliconvalley.com\\_](http://siliconvalley.com) (<http://siliconvalley.com/>) Vinyl anachronists who've refused to digitize their collections, citing the inferior quality of bits versus grooves, might want to pay a visit to [\\_the Lawrence Berkeley National Labs\\_](http://www-cdf.lbl.gov/~av) (<http://www-cdf.lbl.gov/~av>), where two enterprising scientists have developed a novel means of making perfect digital reproductions of vinyl recordings -- with the same technology used to search for the Higgs boson. [\\_Discovery News \(circa 2004, yes, I know\) explains\\_](http://dsc.discovery.com/news/briefs/20040719/recording.html) (<http://dsc.discovery.com/news/briefs/20040719/recording.html>):

"A powerful microscope called a SmartScope with a digital camera collects images of the groove patterns on records or cylinders, which rest on a table moved with precision motors. A computer program allows the microscope/camera combo to travel forward along the grooves until it reaches the end of the recording. The captured image pattern transfers to a computer that translates the tiny, millimeter-sized lines into sound."

It's a fascinating technique and one that could preserve the thousands of aging vinyl and cylinder recordings in the Library of Congress. "There are many promising aspects of the research being conducted at the Lawrence Berkeley Labs," Sam Brylawski, head of the recorded sound section of the library's Motion Picture, Broadcasting and Recorded Sound Division, told Discovery News back in 2004. "One is the development of non-contact playback of fragile sound recordings. Not only cylinders, but radio transcription discs and 78-rpm shellac pressings. If their work pans out to enable efficient and accurate transfers, we will be able to hear broken recordings; be able to restore deteriorating recordings without the addition of digital audio 'artifacts'; and play back obsolete formats without having to acquire or restore specialized machines and identify highly trained, i.e. costly, specialized engineers."



**Original FM band story**

From: C Boone [CBoone@earthlink.net](mailto:CBoone@earthlink.net)

With all the discussion of the original FM band, here is a little history on the "new" FM band back then as reported by the "liberal" press and its impact on TV:

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Threat to Television Is Feared in Frequency Modulation Order Radio Engineers Believe Assignment of No. 1 Channel Will Put Television 'Out on a Limb' if Shift Is Necessary

This article appeared in the New York Times on May 21, 1940. The Federal Communications Commission's assignment of television's No. 1 channel to the frequency modulation broadcasters has left telecasters using this wavelength "out on a limb," according to a round-up of opinion among the radio engineers in the New York area yesterday.

Until specific provisions are made by the FCC it is not known whether the displaced operators will be shifted to the channel now known as 2 or if new frequencies will be allocated to them in the new channel assigned to television between 60 and 66 megacycles.

In New York, channel 1 has been used by the Radio Corporation of America for research work and by the National Broadcasting Company for public television program service.

Inquiry on whether NBC would stop operation of its No. 1 channel station atop the Empire State Building brought the following explanation from an NBC representative: "We must await the FCC's report on television, which we understand may be issued this week. Until then we will not know what provisions are to be made for television or to what channel we must move to when vacating No. 1.

"It will not be a big job to shift over to the channel now known as No. 2, which under the new set-up will be No. 1. But should we have to move to the new channel assigned to television between 60 and 66 megacycles, that would call for a new transmitter, and we might be off the air several months."

Since television receivers are pre-tuned to definite channels so that by the snap of a switch the operator shifts from one to the other, it will become necessary to retune the sets. This, it is explained, is a job for service men. It is estimated by NBC that 3,000 receivers are in use in the New York area.

Commenting on the FCC's decision, Major Edwin H. Armstrong, inventor of the "FM" system, said that the telecasters ought to be happy on being moved from their present No. 1 channel because the waves have reached Chicago and such overlapping causes interference. He explained that interference would be less likely on the 60-66 megacycle path.

"It might cost at a maximum \$20,000 to shift from the present No. 1 channel to the new 60-66 channel" continued Major Armstrong. "The important news in the FCC decision is that any town that can support an 'FM' broadcasting station now can get it because there will be plenty of channels which various towns can use without overlapping."

"The only fly in the ointment now is that the new 60 to 66 megacycle channel, as I see it," said Allen B. DuMont, president of the DuMont Laboratories at Passaic, N. J., who has a television license to build a station in New York. "Receivers now in use will not pick it up. If it is used, service men will have to go around and retune each set.

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"Frequency modulation advocates have been given everything they asked for. Now , if the FCC will do the same for television, manufacturers will know where they stand and can 'go to town.'"

New rules and regulations for "FM" stations will probably be released by the FCC within two weeks, according to Dick Dorrance, representative of FM Broadcasters, Inc.

"Then we will know when the complete plan for operation will be effective," added Mr. Dorrance. "In the meantime all applications for 'FM' stations must be refiled. It will be a gradual process and may not get into full swing until the first of the year.

"Approval of 'FM' by the FCC and assignment of frequencies should work no hardship on television. To shift from channel No. 1 to channel No. 2, as experimental stations in New York, Chicago and Los Angeles may have to do, is a comparatively simple job of readjustment of the transmitter to the new wave, also retuning of the aerial and reflectors."

From <http://members.aol.com/jeff560/tv5.html>



### **Gettin into broadcasting**

From: Jeff Glass, BSEE CSRE, Chief Engineer, WNIU WNIJ [Xmitters@aol.com](mailto:Xmitters@aol.com)

What's the best way to train and get experience for such a career shift? Given declining listenership, satellite radio competition, portable music devices, internet radio, etc. etc, is there a long term future for this profession?

You poor soul. I do hope you come to your senses. But seriously, here is what I suggest you do.

Contact your local radio stations and get the names for some area contract engineers. Call one or all of the contract engineers and tell them that you're interested. Try then to get in on the ground floor of a studio rebuild or a transmitter install. Ask the engineers if you can come in and observe the project's progress.

Alternatively depending on the size of your market, you might also want to check out any TV stations or larger radio stations. Again, see if you can get in on a project at one of these places. The other possible path would be to do engineering for remote broadcasts. This will give you a chance to learn, demonstrate your technical skills, work habits and reliability. These are important employee attributes for any job. Show your perspective employer that you have all of the right attributes.

The key thing to remember is, how to approach your perspective engineering opportunities in such a way that you will make the contract engineer's or station chief engineer's life simpler rather than more difficult, by hiring you. Everyone has a long

"to do" list. Persuade me how my To Do list will get shorter rather than longer, by hiring you.

I think if you follow this approach, you should be able to find something. Getting a ham license or taking some basic electronics classes would not hurt either.

Good luck,

Jeff Glass

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### **Getting it Right**

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Despite efforts to keep what we print here accurate, we occasionally get it WRONG. The story we did in our last edition about long time friend and professional associate, Bob Hurley was not correct: Bob is not retiring anytime soon. Bob puts it best: "Thank you for forwarding a copy of the very nice piece on your web site, I will hold this & we can use it for my retirement or obituary whichever comes 1st."

Despite some illness, Bob Hurley is still very much the Director of Engineering for the Cinema & Television Arts Department at California State University, Northridge. We wish Bob all the best and apologize for any problems this may have caused him. If you know Bob, you can reach him at : [bob.hurley@csun.edu](mailto:bob.hurley@csun.edu)

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### **From the Pen of Mendrala**

By: Jim Mendrala

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Coming Soon to a Selected Theater Near You

On November 4, 2005 Disney will release a new animated feature, "Chicken Little". What makes this unique is that it will be in 3D using Industrial Light and Magic's (ILM's) new 3D process.

Now Hollywood has done 3D movies in the past the first one, I believe, done in the fifties was "Bwana Devil" followed shortly by Warner Bros. "The House of Wax". It was filmed by the way by Andre de Toth, who was blind in one eye and could not appreciate the 3D effect.

The film was made using two 35 mm BNC film cameras mounted facing each other and a mirror arrangement to provide for the proper interocular spacing. That camera can be seen at the "Society of Cinematographers" club house in Hollywood, CA.

To exhibit they used two films projected simultaneously in sync with polarizers on each projector so that the “left” images reached the left eye and the “right” image reached the right eye with the viewer wearing polarized glasses.

Other feature films have been shot in 3D using Red and Blue glasses but except for their novelty have not been very successful. “Spy Kids 3D” comes to mind.

Today the technology has evolved and Dolby Digital Cinema will be projecting the “Chicken Little” feature at 100 selected digital theaters in 25 markets nationwide.

Walt Disney in the early days photographed the animation cells on a multiplane camera that he invented back in 1936. The multiplane camera was used in the Walt Disney Studios during the thirties and forties to create countless animated pictures. The first, I believe, was “Snow White and the Seven Dwarfs”. The multiplane camera used stacked planes of glass each painted with different elements of the animation. His idea was to give his animated features more depth. Only the camera operator could see the real stereo effect though, and only when looking down on the multiplanes from the camera’s point of view.

With ILM’s new process and Dolby Digital Cinema projectors, in the 100 selected theaters, the new feature “Chicken Little” should set a new benchmark in the 3D area. ILM president Chrissie England said in an article in the Digital Cinema Report: “The digital 3D release of Chicken Little is a very exciting chapter in Hollywood history as it marks the next generation of moviemaking. We are delighted to participate with Disney in setting a new benchmark for the future. We are pleased that Chicken Little is the first animated movie to use our new process using Disney’s actual 3D models, animation, and camera data. This process allows us to provide a richer, more nuanced viewing experience for moviegoers than any existing post-production techniques. We feel audiences will embrace this experience as the new standard in animated features.” ILM will render the movie in 3D so it can be played on Dolby Digital Cinema servers. The three companies say that joint effort will create the next step in the evolution of motion picture entertainment.

Barco and JVC are using a system called “Infitec” which is a signal switching system to produce 3D images.

What black box Dolby Digital Cinema will use to display the movie from its server has yet to be announced.

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**Parting Shots**  
By Larry Bloomfield

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I have been a strong proponent for more technically astute people being appointed to the FCC. I wrote my congressman and here is his response. (Please don't laugh a long and as loudly as I did when I read it.)

RE: Your recent email (Ref: 6516855)  
From: "DeFazio, Peter" [Peter.DeFazio@mail.house.gov](mailto:Peter.DeFazio@mail.house.gov)  
To: [Larry@Tech-Notes.TV](mailto:Larry@Tech-Notes.TV)

Thanks for your recent message requesting the appointment of an FCC chair with a more technical background. I appreciate hearing from you and apologize for the delay in getting back to you.

While it could be helpful if someone with more technical knowledge than former Chairman Powell was to serve on the FCC, it should be noted that there are hundreds of engineers who work at the FCC and advise the commissioners on policy. Also, there are hundreds more who work in academia and in industry who advise the FCC regarding technical issues. Most of the commissioners have backgrounds in law, which should theoretically help them make decisions in the public interest, as the commission is tasked to do. Unfortunately, Chairman Powell often sided more with industry than with the public; changing this mentality at the FCC seems to be more important than appointing engineers to sit as commissioners.

I was one of only 16 Members of Congress to vote against the 1996 Telecom Act because I didn't believe proponents' claims that the bill would result in more choices, better quality, and lower prices for consumers. Nearly a decade later, I've been proven right -- none of the promises have come true. Further, tremendous media concentration, and foreign ownership of media companies in this country, has resulted from this deregulation.

Sadly, as chairman of the FCC, Michael Powell believed that the last vestiges of public control over media content should be removed and should be placed in the hands of the corporate media. Since 1996, increased consolidation among media outlets has resulted in fewer independent voices and less programming and news coverage devoted to local issues. Today, five conglomerates dominate the television news media. These companies own television networks and affiliates, radio stations, cable systems, Internet service providers, and program production companies. Five of them control over two thirds of the programming that appears on primetime television. The top 25 television owners now own more than 44 percent of all broadcast stations, up from 24.6 percent in 1995.

Perhaps nowhere is the impact of ownership concentration more evident than in radio. In 1996, before Congress relaxed radio ownership limits, the two largest companies owned 115 radio stations. Today, these two companies own 1,451 radio stations. The top twenty-five radio ownership groups control 24.9 percent of the nation's commercial stations, and take in 59 percent of all advertising revenues. This consolidation has affected everything from the play list of individual radio stations to the local news reports being offered. Greater consolidation in radio and other media outlets could further undermine every person's access to the independent, local media that provide them with news and information important to their lives and communities.

The U.S. Constitution does not give the U.S. House of Representatives any role in the approval or rejection of presidential appointees. The Senate is granted sole jurisdiction. Therefore, I will not have the opportunity to consider the worth of any nominees to the FCC. I would encourage you to contact Oregon's Senators and express your views to them.

Rest assured, I will continue to hold the FCC, no matter the chairperson, true to the spirit of protecting the public interest. Again, thanks for writing and please stay in touch.

Rep. Peter DeFazio  
Fourth District, OREGON

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