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*Our purpose, mission statement, this current edition, archived editions and other relative information is posted on our website. We've had over 27,100 different visitors since we started the website on July 1st, 2000. .*

*Thanks to our regulars and welcome to the new folks.  
This is YOUR forum!*

Happy New Year!

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Editor's Comments

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In this PDF version of the Tech-Notes, use the bookmark feature to navigate to the different sections of the Tech-Notes and to the various stories. It is a little tap located to the left of this screen. Click on it to expand the Bookmarks. If it is not there, you may not have the latest version of Adobe Acrobat reader. Click here to download it FREE.



### **Keeping history alive – Getting dubs of antique tape formats & more.**

It doesn't happen often but what do you do when someone comes in with a bit of tape from an old 1/2 inch EIAJ standard machine or has water or fire damaged tapes, and wants to use it for whatever? Your knee-jerk reaction is probably to say: "No way!" The same applies when someone wants to use the information from an audio wire recorder,

the old Edison cylinders, 78 RPM records and other formats that haven't been seen or used for decades. Remember: 1" Ampex A, Bosch B, IVC, 1/2" Concord Shibaden or the 1/4" Akai Formats? There's still a lot of archival information stored on them, like it or not.

According to the experts in this field of recovering from antiquated formats, special handling must be used, and unless you're an expert at this, you could do more to destroy what information that remains than retrieve it.



\*These three top pictures courtesy Vidipax Inc

We've come up with several places that have both the know-how and equipment to meet these kinds of challenges. Check out their websites, where available.

<p>Joe Pagano RGB Broadcast Service Co. 1234 Southampton Rd. Philadelphia, PA 19116 (215) 464 3158 <a href="http://www.rgbvideo.com">www.rgbvideo.com</a> <a href="mailto:rgbvid@comcast.net">rgbvid@comcast.net</a> Specializing in restoration, re-mastering, and transfer of obsolete video tape formats.</p>	<p>Kevin O'Neill Vidipax Inc 450 W 31st St. New York, NY 10001-4608 (212) 563-1999 <a href="http://www.vidipax.com">http://www.vidipax.com</a> <a href="mailto:sales@vidipax.com">sales@vidipax.com</a> Specializing in obsolete audio (cylinder - wire recording) and video tape formats</p>
<p>Peter Brothers - Specs Bros 1 Mt Vernon St. Ridgefield Park, NJ 07660-1451 (201) 440-6589 <a href="http://www.specsbros.com">www.specsbros.com</a> <a href="mailto:info@specsbros.com">info@specsbros.com</a> Specializing in disaster recovery unusual 1/2, 3/4 and 1 in video and cassette formats.</p>	<p>Dave Crosthwait 177 West Magnolia Blvd - Burbank, CA 91502 (818) 563-1073 - <a href="http://www.DCVideo.com">www.DCVideo.com</a> <a href="mailto:David@DCvideo.com">David@DCvideo.com</a> Specializing in unusual 1/2, 3/4 and 1 inch video open reel and cassette formats.</p>

Cliff Benham 14 Marie Ln West Grove, PA 19390 (610) 869-6597 <a href="mailto:CBenham@comcast.net">CBenham@comcast.net</a> Will take small jobs. Has several older formats – no quad.	CBS Television City 7800 Beverly Blvd. Los Angeles, CA 90001 (323) 575-2345 Mostly 2 inch quad, 1 inch C format and ¾ inch U-Matic format transfers.
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### Subject: **The Passing of a friend & an associate**

#### DAVE HILL Passes Away

As reported in a special e-mail to our readers, it is with the deepest regret that we pass on to you the passing of a very dear friend and associate, David Hill. Dave was only 64,



Saturday, December 21<sup>st</sup>. He was a longtime BABEs (Bay Area Broadcast Engineering Society), SBE Chapter) participant and rep for Larcan.

Dave was very pleasant, well read and could carry on an intelligent conversation about nearly anything. He found joy in music, reading, and fine dining. He truly enjoyed his work and would go to great labors to rectify problems for his customers.

From the initial diagnosis of a brain tumor until the time of his death was just 8 weeks. He leaves a daughter, Anita, who is an RN. He looked forward to what special treat she would bring him each afternoon during his therapy.

Dave was a rare gem of a person. His positive spirit will live long in the memories of those who knew him. Dave is well known for his work with Harris and, of late, Larcan. Dave held the dignity of Admiral in the Order of the Iron Test Pattern, having survived in the broadcast business since 1958.

Memorials may be sent to public TV or radio - KCSM, KQED, the National Brain Tumor Foundation or Mills-Peninsula Hospitals Foundation. There will be a memorial service on January 25<sup>th</sup> at 11 AM. It will be held at a private residence: 1205 Tartan Trail Rd., Hillsborough, CA, 94010.

## THOMAS L. MANN's Obituary



Television and radio broadcasters mourn the passing of a leader in broadcast technology, Thomas L. Mann, 53, in Palm Springs on December 19, 2002. Mann was President & CEO of Weyrcliffe-Century, Ltd.

Prior to founding Weyrcliffe-Century, Mann served as Vice President, Engineering and New Technologies for USA Broadcasting, Inc. where he was responsible for design and construction of a \$26 million multi-station, multicast Group Operations Center at Ontario, CA, the first large-scale digital central-casting facility in the United States, linking 13 owned television stations to one master control center for origination of 128 program streams. The massive fast-track project was completed in 120 days.

Before joining USA Broadcasting, Mann was Vice President and Partner in Cavell, Mertz & Davis, Inc., an engineering consulting firm based in Washington, DC. His tenure there included a design and construction management agreement with the Hearst Corporation under which Mann personally designed and managed the construction of the historic first three commercial Digital Television stations permitted by the FCC in the United States.

Earlier, Mann served as Corporate Vice President, Engineering and New Technology for Argyle Television, Inc. until that company merged with the Hearst Corporation in August, 1997. He joined Argyle from the Walt Disney Company's KCAL-TV, Los Angeles where he was Director of Engineering from 1989-1994.

A native of Virginia, Mann worked in Washington, DC for many years including as Managing Director, Operations and Engineering for NBC-owned WRC-TV, Vice President, Engineering, NBC Radio Networks and Senior Consulting Engineer, Jules Cohen & Associates.

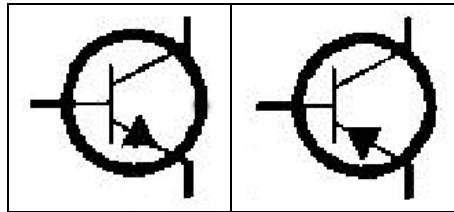
Mann is survived by his partner Dr. Matthew A. Rahman, sister Barbara Mann and nephew Andrew Rapisarda.

Donations in honor of Tom Mann can be sent to Wildwood Conservation Foundation, P.O. Box 1078, Guerneville, CA 99446 ([www.wildwoodfoundation.com](http://www.wildwoodfoundation.com)).



Subject: **Happy birthday to the Transistor and TCP/IP**

By: Larry Bloomfield



We should be taken to task for not remembering, last month, the birthday of the transistor. It turned 56. It was Drs. Bardeen, Brattain and Shockley who, while experimenting with semi-conducting materials in the Bell Laboratories (now Lucent Technologies) in Murray Hill, NJ, in December 1947, discovered how it make it amplify. They received the Nobel Peace Prize in physics for their outstanding accomplishment in 1956.

No matter how hard you try, they still don't work if you can get all the smoke back into them. For more, visit: <http://www.lucent.com/minds/transistor/pdf/trans-history.pdf>

Thirty years ago, on Jan. 1, 1983, the Internet switched from Network Control Protocol (NCP) to Transmission Control Protocol and Internet Protocol (TCP/IP). The Internet has had other earlier key development dates so, strictly speaking, the net is over 30 years of age, but the protocol change is viewed by some as the birth of the Internet as we know and use it today. Things have never been the same



Subject: **A defining moment for TV**

From: Mike Snider, USA TODAY



According to Snider, more than two decades have passed since the nation's TV industries started tinkering with the next generation of broadcast technology and he says the pieces of the transition are finally beginning to "clicking into place." Sales are rising rapidly as prices fall, though they're still rather pricey and only 4% of U.S. homes have them. Networks and cable channels are supplying more programming to watch on them and all this despite the constant bickering and squabbling that has been going on between cable operators, Hollywood studios and broadcasters. For more on Snider's report, visit:

[http://www.usatoday.com/tech/news/2003-01-06-digital-tv\\_x.htm](http://www.usatoday.com/tech/news/2003-01-06-digital-tv_x.htm)



Subject: **Plasma Displays**  
FYI

Want to know about plasma displays? Here are two Uniform Resource Locators (URLs) that you might find of interest. <http://www.avsfumfaq.com/~plasma/> and <http://www.creath.net/plasma/faq.html>



Subject: **NAB to Chip in for Lab**  
By: Fred Lawrence

According to Broadcasting & Cable, the National Association of Broadcasters' Joint Board is expected to approve funding for a broadcast laboratory at \$2 million per year for just three years.



NAB isn't along in this effort. For it to happen other proponents, proponents, led by the Association for Maximum Service Television (MSTV), must cough up a matching \$2 million per year from the consumer-electronics and broadcast-equipment manufacturers/vendors sectors. With out the matching funds, don't get your hopes up.

Besides the financial aspects of this plan, the near impossible is expected, they all must agree on the projects the lab will address. Informed sources say that if the lab is a "a happening," one of the first issues to be address is improved reception of 8VSB (vestigial sideband) digital-TV signals.

Since NAB represents a large number of radio stations, radio issues will, no doubt, have to be addressed with the same vigor. It wouldn't surprise anyone, if and when the lab is "a happening" for them to implement new in-band, on-channel digital-radio service, that are in the process of being rolled out later this year.





Subject: **Philips, Fox Clear Digital TV Hurdle**  
From: Jon Healey -- Los Angeles Times Staff Writer



Researchers say they have created software to enable perfect reception by indoor antennas. Hoping to boost the appeal of digital television, News Corp.'s Fox Group unit and Philips Research announced a new technology earlier this month that they say would deliver perfect digital TV signals to more homes through indoor antennas.

John Taylor of Zenith Electronics Corp., a key patent holder in the field of digital broadcasting, maintains that the biggest shortcoming for today's digital receivers is tuning in weak signals, not weeding out echoes. Both of these issues are being addressed as manufacturers develop increasingly sensitive receivers, better antennas, more broadcasters shift from low-powered experiments on their digital channels to fully powered digital stations and receive/decode systems that are more able to deal with multipath and echos.

For the complete story, go to: <http://www.latimes.com/business/la-fi-digital2jan02001438,0,4944968.story>

*(Editors Note: Fox really needs to stop misleading the public with their claim about their widescreen programming.)*



Subject: **Bouncing Signals Push the Limits of Bandwidth**  
From a story by IAN AUSTEN as it appeared in the New York Times.

**The New York Times** The story starts out: "It is a phenomenon well known to people who drive through urban high-rise canyons. Just as you stop at a traffic light, the car radio loses its signal. Once the light turns green, the car only has to creep forward a few feet to restore the radio reception.

"Those dead spots, which can also cut off cellphone calls and mobile computer communications, are often caused when signals bounce wildly off the surrounding buildings. This scattering creates pockets in which two reflections of the same signal collide and cancel each other out."

*(Editor's Note: This New York Times story addresses several issues in RF propagation. The story seems to address only part of the problem of digital reception. It really doesn't*

take into account the swamping or overloading of receivers in those isolated areas where there is a high (to the receiver's front end) density of RF.)

To see the whole story, visit:

<http://www.nytimes.com/2003/01/16/technology/circuits/16next.html?todayshadlines=&pagewanted=print&position=bottom>.



Subject: **High-Speed Internet Use Saw Up-tick in '02**

From: The Gale Group, Inc. & Ziff Davis Media Inc.

***Editor's notes:*** This story speaks of the increase by 27 percent of Internet connectivity in the first half of this past year. They reference FCC data that shows 16.2 million high-speed connections in service today, which is up from 12.8 million in the second half of 2001.



This story is important to broadcasters as the Internet is being used more and more to ship program and other data content. What got our interest is the mention of Covad Communications Group Inc., one of the few startup carriers to survive the telecommunications consolidation in progress. Although we've never used Covad's services, we are grateful for them being there. – Here's why.

Several years back when Tech-Notes were located in Silicon Valley, we wanted to increase our Internet access from dial-up, using a 56Kb modem, to anything that was even remotely faster. In an all too familiar story, our "local telephone company," then GTE – The Great Telephone Experiment (later renamed Vorizon) told us we were too faraway from the central office. We contacted Covad and they said: "No problem!" When asked, Covad said they'd deliver the DSL signals to our offices via telephone lines: the same lines GTE said they couldn't give us service on.

Needless to say, that raised a red flag and we began the technical competency arm-wrestling contest with GTE. After many phone calls that got up to some rather high level engineers, GTE decided they'd better test the lines to see why they couldn't do what Covad could with their very own lines. Several months later, we got the DSL service through GTE.

So if you get that – "you're too far away from the central office" story, don't buy it for one minute. Push the limits. It has been our experience that most of the local telephone company people don't know what they're talking about and that is not limited to digital services either.



We're now with Quest (Questionable Use of Electronics Stuff for Telephony) for telephone service and that is fatter for a whole book of horror stories. Up here in Oregon, our Internet access has gone from Starband (satellite two-way Internet access) at typically 300Kbps, to our local ISP wireless service, where we get between 1Mbps to 4Mbps on the 10 Meg pipe we're connected to. Don't you love it?

For more info on the Covad story, visit them at: <http://www.covad.com>



**Subject: Student Charged in DirecTV Theft**  
By: Larry Bloomfield

In a recent article in the New York Times, it was reported that a 19-year-old University of Chicago sophomore, Igor Serebryany of Los Angeles was arrested and charged with "stealing trade secrets from DirecTV." It all had to do with passing information over the Internet about DirecTV's latest "smart card" technology.



The article goes on to say: "DirecTV has been plagued by piracy. The company has 11 million paying subscribers, but industry analysts estimate that an additional million or more households illicitly receive DirecTV signals."

DirecTV has spent \$25 million on research and development of their "Period 4" technology, which it introduced last year. It is not difficult to see why they don't take too kindly to someone compromising it.

Serebryany can forget about going to Newport Beach, CA or one of the Florida hotspots for spring break.

For the full story, visit:

<http://www.nytimes.com/2003/01/03/technology/03PIRA.html?todayshadlines>



**Subject: Five FCC Commissioners Testify Before Congress**  
From: An FCC press release



FCC Chairman Powell reassured Congress earlier last week that there would be no radical changes in Commission rules governing local phone service, high-speed Internet access and ownership of media outlets, but Democratic and Republican Senators remain skeptical. In a rare occurrence, all five commissioners appeared before the Senate Commerce Committee to discuss how the agency would alter the

communications landscape. Presently the Commission has under consideration proposed revisions to the restrictions on ownership of newspapers, cable, and broadcast properties, the definition of internet access for telephone companies, and revision of the Commission's rules with respect to the types of network elements that incumbent telephone companies must make available to their competitors. Chairman Powell noted that consideration of the rules is necessary since the federal courts require the Commission to justify its rules. Chairman Powell also said that the Commission may adjust the way it calculates ownership levels in local markets, which could restrict the ability of radio companies to own additional radio stations in those markets.

For more information, go to: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-230241A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-230241A1.pdf)



**Subject: Record Labels & Tech Companies Reach Accord in Copyright Fight**  
From an RIAA press release

The Recording Industry Association of America ("RIAA"), which represents the five big record labels and the Business Software Alliance ("BSA") and the Computer Systems Policy Project ("CSPP"), two trade groups whose members include IBM, Dell Computer Corp., and Intel Corp., have reconciled their differences regarding digital rights management. Under an agreement reached last week, the organizations collectively will oppose government imposed technology mandates upon consumer electronics manufacturers as well as proposed changes in the Digital Millennium Copyright Act to expand the fair use definition of digital material. Instead, the organizations will favor inter-industry discussions to resolve digital rights management issues.



The accord does not include a number of significant players in the digital rights management arena, including the Motion Picture Association of America ("MPAA"), The Walt Disney Co., Verizon Communications, the Consumer Electronics Association, and major consumer groups.

For more information, go to: [http://www.riaa.com/PR\\_story.cfm?id=595](http://www.riaa.com/PR_story.cfm?id=595)



**Subject: Supreme Court Upholds Copyright Protections**

From: A Government Press Release

The Supreme Court upheld as constitutional, this past Wednesday, a federal law that extended copyright protection an additional 20 years. The extension is important to media companies such as The Walt Disney Co. and AOL Time Warner, who stood to lose hundreds of millions of dollars if they no longer held the copyrights to movies such as "Casablanca," "Gone With the Wind," "The Wizard of Oz" and "Steamboat Willie." Their copyrights in some of these movies would have expired in 1998, but for passage by Congress of the copyright extension.

Internet publishers and others, who wanted creations such as Mickey Mouse available without paying royalties, had challenged the copyright extension. The Supreme Court, by a 7-2 vote, ruled that the copyright extension was constitutional because Congress has wide leeway in prescribing a limited time for copyright protection, including the extension of the copyright by an additional 20 years.



Back Row (left to right): [Ginsburg](#), [Souter](#), [Thomas](#), [Breyer](#)  
Front Row (left to right): [Scalia](#), [Stevens](#), [Rehnquist](#), [O'Connor](#), [Kennedy](#)

For more information, go to: <http://www.copyright.gov/docs/eldrdedo.pdf>



**Subject: From the great Consumer Electronics Show in Las Vegas**

By: Dale Cripps, Publisher of HDTV Magazine (reprinted by permission).

This year's show is stupendous. It is far too much to digest in a day, or even a week. But the general impression is that HDTV is here to stay. Yes, we would all like to see it go faster, but the promising appeal of new products is sure to add to the acceleration. Everywhere you look pixel addressed displays blazed in all their glory. One remembers back to just a years ago when the few HDTV displays shown on the main floor were always dimmer and duller than their NTSC counterparts, and somewhat an embarrassment. But that day has gone and now a vast array of brilliant widescreen displays in all sizes blazing in brilliant colors shown wherever you looked with no apologies for brightness needed. The contest this year for your dollars will be increasing for Plasmas, LCD direct-views, DLP projection, and LCOS, the latter still not fully satisfying to yours truly. One can hunger for a bit more resolution from the mostly 720 X



1440 pixel addressed displays but that is taken care of by Samsung's dream baby -- a full 1080i X 1920 60" LCD panel. (no price on it yet). That display is breathtaking. New HDTV PVRs are being shown by Zenith, Dish, DirecTV and others, and so far I have seen at least one blue laser DVD recorder from Samsung capable of recording 25 Gigs on a single disk. Panasonic is rumored to have such a recorder later in the year.



**Subject: FCC Seeks Comment on Cable-Consumer Electronics Agreement on “Plug And Play”**

From: An FCC Press Release and Larry Bloomfield

The Federal Communications Commission (FCC) took another step forward in the transition to digital television. Today’s proceeding seeks comment on proposed rules for



“plug and play” cable compatibility, which is a key piece of the digital television puzzle. In a “plug and play” world, consumers will be able to plug their cable directly into their digital TV set without the need of a set-top box.

On December 19, 2002, the cable and consumer electronics industries filed a Memorandum of Understanding (MOU) which details an agreement on a cable compatibility standard for an integrated, one-way digital cable television receiver, as well as other unidirectional digital cable products. The industries assert that unidirectional digital cable television receivers manufactured pursuant to the MOU would be capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing digital programming. Due to the unidirectional nature of this receiver specification, an external navigation device will still be needed to receive advanced features such as cable operator-enhanced electronic programming guides, impulse pay per view or video on demand. The MOU indicates that the industries continue to work on a bidirectional receiver specification that would eliminate the need for an external navigation device to receive advanced services.

When the industry agreement was reached, FCC Chairman Michael K. Powell said, “Plug and play will be good for the future of these industries, good for the digital transition, and most importantly, good for consumers.”

The *Further Notice of Proposed Rulemaking (FNPRM)* seeks comment on the MOU and the proposed FCC rules contained therein, as well as its potential impact upon consumers, small cable operators and multichannel video programming distributors (MVPDs) other than cable operators. The *FNPRM* also seeks comment on the jurisdictional basis for FCC action in this area, including the creation of encoding rules for audiovisual content provided by MVPDs. As to issues not addressed by the MOU, such as the down-resolution of programming, the *FNPRM* seeks comment on whether FCC action is needed and authorized.

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In a related issue, it is reported that a pact has been reached on 'plug-n-play' TV. The cable industry and TV set makers are expected to announce an agreement that will allow consumers to plug their new digital TVs directly into their local cable systems. Currently, consumers who buy digital TVs must buy a separate tuner or set-top box in order to receive digital programming. The cumbersome nature of that arrangement is just one more impediment to a rapid transition to digital TV as promoted by Congress and the Bush administration. The cable and TV industries have spent several months in intense discussions on how best to achieve the so-called "plug-n-play" compatibility that will let consumers simply buy a TV, bring it home, plug it in and see pictures. The FCC has said it will impose a plug-n-play standard if private industry cannot produce one. Talks between the cable firms and set makers have been going on behind closed doors, and details of the agreement were sketchy Wednesday, but one industry source said it would require FCC and possibly congressional action to implement the initiative.

It will be interesting to see where this all goes.



Subject: Broadcasters Seek DTV Simulcast Delay

By: Fred Lawrence

Despite the fact that most broadcasters are simulcasting their analog NTSC programming on their digital channels, many are looking for a way around a federal rule that requires them to simulcast some of their analog programming on their digital channel. Go figure.

According to the current rules and regs, broadcasters have until April of this year to ensure that 50 percent or more of their analog programming is simulcast with the quota raising to 75 percent next year and a full 100 percent in 2005.



It's so sticky that the National Association of Broadcasters asked Federal Communications Commission officials to considering dropping or delaying the simulcast requirement. Now we all know that NAB has to get their fingers into everything.

The genesis of this whole concept stems for a rule adopted in 1997. The thinking then was that TV viewers would be reluctant to purchase digital equipment if they might not be able to view their favorite programs they were used to on the analog channels.

An interesting twist to this story is that, the FCC, in a concession to broadcasters, put off the simulcast requirement for a few years. In fact the National Cable & Telecommunications Association, an organization who's been the biggest thorn in the broadcaster's side by not carrying both the analog and digital channels even urged the FCC to impose a simulcast mandate from the outset, saying it would promote the overall digital transition. One can only ask why?





**Subject: NASA Breakthrough Method May Lead To Smaller Electronics**

From: A NASA Press Release

NASA scientists have invented a breakthrough biological method to make ultra-small structures that may well be used to produce electronics 10 to 100 times smaller than today's components.



As part of their new method, scientists use modified proteins from 'extremophile' microbes that live in near-boiling, acidic hot springs to grow mesh-like structures so small that an electron microscope is needed to see them. A research article describing the new technique appeared in the Nov. 24, 2002, on-line version of the journal Nature Materials.

Scientists have crystallized new protein to form tiny, flat, lattice-like structures that act as nano-templates. These crystalline structures, made of rings about 20 nanometers across, are about 5,000 times smaller than the width of a human hair. A nanometer is a billionth of a meter.

Technical information about the new process can be found at:

<http://ipt.arc.nasa.gov/trent.html> and <http://ipt.arc.nasa.gov/mcmillan.html>

Images are available at:

<http://amesnews.arc.nasa.gov/releases/2002/02images/bionano/bionano.html>

High quality audio files are available at this URL:

<http://amesnews.arc.nasa.gov/audio/bionanosound/bionanosounds.html>

Questions: E-mail: [jbluck@mail.arc.nasa.gov](mailto:jbluck@mail.arc.nasa.gov)



**Subject: First Professional DVD-Ram Camcorder Now Available**

From: Hitachi



The world's first professional DVD-RAM camcorder, the new Z-3000/CR-D10 from Hitachi Denshi America, Ltd., is now available and scheduled to begin shipping at the end of this month.

Using Hitachi's digital signal processing cameras, the Z-3000 series, along with the CR-D10 recorder and third party nonlinear editing software for field applications, makes this an extremely flexible, mobile and cost-efficient field acquisition system. The CR-D10 records digital video from the Z-3000 Series professional DSP cameras directly as computer files onto the DVD-RAM or DVD-R disc.



Projects can be produced completely from a remote location, easily edited in the field and processed for transmission using; as an example, the NLE PC's TCP/IP protocol. The recorder employs variable rate MPEG-2 compression and uses the recently released DVD Forum specification for Video Recording - DVD-VR. Computer operating systems such as Microsoft's Windows, Apples' OS/X, Linux and Unix can read and write to DVD-RAM and are compatible with DVD-VR specifications.

For more information, visit: [www.cmnd.com](http://www.cmnd.com)



Subject: **More Cable Hype.**

By: Larry Bloomfield

Well the National Cable and Telecommunications Association (NCTA), the self-appointed spokesperson for the Cable TV industry, say that Cable companies have launched HDTV on cable systems serving about one-third of U.S. TV households in more than 90 markets across the United States.



It is hard to believe that the representatives of an industry that has done all they can to stand in the way of the transition to digital can stand up and say things like: "HDTV, considered to be another weapon in cable's battle with satellite TV, is being provided by at least one cable operator in 62 of the top 100 DMAs, the association said. The number of homes passed by cable systems providing HDTV is about 37 million, or one in three US TV households."

We would have no issue with the cable industry or the NCTA if they had offered broadcasters equal coverage of both their analog and digital signals, but they have not and seem not to be interested in doing so. This as any rational person can gather is a roadblock if there ever was one.

They go on to say that cable's HDTV mix includes premium channels from HBO and Showtime as well as Discovery HD Theater. They also say that wire is also delivering local HD content in cities where it's available to viewers. We ask them to tell us where? We'll print it.



NAB, another organization who likes to spout off responded to the press release from NCTA which we commented on above says, taking a line from Paul Harvey, that they want to give you the "rest of the story."

They say that the artfully-worded NCTA press release forgot to mention – for obvious reasons:

1. In most of the 90 HDTV markets cited by NCTA, the only HDTV programming that is available is provided by a cable network (like Discovery or HBO). Cable

operators are carrying free, local broadcast digital and HDTV programming in only 33 markets.

2. That's a paltry commitment, considering that local, over-the-air stations are now transmitting digital and HDTV programming in 179 markets.
3. Even more telling: There are now 700 local TV stations that have made the transition to digital and high definition programming; of those 700 free, over-the-air digital stations, fewer than 10 percent are being carried on cable.

NAB concludes: "No amount of rosy NCTA spin changes the fact that the cable industry is still using its gatekeeper clout to deny most Americans access to over-the-air digital and high definition television programming."



Another example of the kind of thing cable is pulling across the country comes from the following report via Reed Business Information – US and Multichannel News

A California TV station planning to surrender its analog license this month is having trouble securing digital-signal carriage on some Time Warner Cable systems in the Los Angeles market.

The dispute could become an important federal-policy test case, because station KVMD in Twenty Nine Palms is the first broadcaster committed to making an immediate transition to digital transmission.

Under Federal Communications Commission rules, KVMD is entitled to elect mandatory cable carriage for its digital signal once it gives up its analog TV license. The FCC also permits digital-only TV stations to demand cable carriage in analog if the station supplies the necessary conversion equipment.

#### Carriage upside

KVMD's analog signal covers an area with about 60,000 viewers. Its more-powerful digital signal is expected to reach an additional 4.8 million people.

"The digital signal is very a broad signal that will cover a lot more ground than the analog signal," said KVMD owner Ronald Ulloa.

KVMD has been operating its digital station at reduced power levels, pursuant to a special FCC license.

In September, Time Warner sent the station a carriage-rejection letter, claiming the station failed to deliver a "good quality signal" to the relevant headends.

KVMD told the FCC Time Warner must have been measuring the analog signal, because the operator's testing occurred many months prior to the launch of DTV transmission.

That particular debate aside, Time Warner wants FCC permission to exclude many systems in various Los Angeles suburbs from KVMD's market.

Under FCC rules, Time Warner can seek market modifications if it can demonstrate that the station does not serve the local needs of cable customers, the system does not have a history of carrying the station and the station is geographically remote from the cable properties.

Time Warner said all three criteria apply to KVMD, especially the one regarding geographic remoteness. The MSO said some systems it wants excluded from KVMD's market are more than two hours by car from the station.

Gary Metz, Time Warner Cable's vice president and assistant general counsel, said it was also notable that KVMD offers syndicated programming and fails to provide local news of interest to cable subscribers.

Because the FCC is egging on the shift to digital, it might not want fights over market modification to deter stations that want to convert rapidly. But realistically, only a small number of broadcasters are willing to abandon analog TV in the near future because doing so would cut them off from nearly all of their off-air viewers.

A situation similar to KVMD's exists in Atlantic City, N.J., where independent station WWAC has FCC permission to cease analog broadcasting, but has not said when it will make the transition.

WWAC's digital signal, which is much stronger than its analog feed, would reach an additional 1.3 million cable subscribers – mostly Comcast Corp. customers in the Philadelphia market.



**Subject: Sales of Large-Screen TVs Jump in 2002**

From: Reuters

Sales of high-end televisions rose sharply in 2002 and will stay strong in 2003, as more affordable prices spur consumers to build home entertainment systems, according to an

industry report released on Friday.

More than 1.6 million large-screen projection televisions were purchased between January and November of 2002, up 30 percent over the same period a year ago, research firm NPDTechworld said in the report. Purchases of flat-panel televisions increased 381 percent over the same period when compared to 2001. Over 235,000 units were sold between January and November 2002 compared to 48,000 units during the same period in 2001, they said. "With higher quality liquid crystal and plasma display panels at more affordable prices, customers are stepping up to the latest technology," said Tom Edwards, and analyst at NPDTechworld, which is a unit of NPD Group. Prices for flat panel televisions typically start around \$500 and run well above \$1,000, while projection TVs sell for \$2,000 to \$5,000. Some high-end plasma screens cost more than \$10,000. In addition to large, sleek screens the TVs feature a superior quality picture.

No doubt leading consumer electronics makers such as Samsung Corp., Sony Corp, Matsushita Electric Industrial Co Ltd. and Thomson discussed their strategies for televisions and other products at the recent Consumer Electronics Show convention in Las Vegas. Now it's wait-and-see time.



**Subject: DTV Transition Score Board**

By: Larry Bloomfield

With 700 DTV signals are now being transmitted in 178 markets that include more than 96% of U.S. TV households. In addition, 69.24% of the more than 106 million U.S. TV households are in markets with five or more broadcasters airing DTV and 35.6% are in markets with eight or more broadcasters sending digital signals.

As of June 30, 2002, the FCC says there are a total of 1712 full power television stations. Do the math! This is still only 40.89%. Again, this does not include any requirement for the (2647 UHF Translators and 2094 VHF Translators) 4741 translators/LPTV stations to do anything. Where are they all going in 2006? Keep in mind that there are ten states that have over 300 translators in them and many cable companies get their feeds from 3rd and 4th hops. I know this last paragraph is a repeat, but maybe someone in government will see it and do something about it. When do we panic?



Subject: **DVD Copying Software**

From: Nobody wants to fess up to where this came from.



A software firm has come out with a program that will allow you to burn an exact copy of a commercial DVD. This article spells it out:

Missouri-based 321 Studios has released DVD X Copy, a \$99 program that is the first to let users create a mirror image of an entire DVD on a second blank DVD. The copy even includes menus, special features, and enhanced audio, the company says. Robert Moore, president and founder of 321 Studios, says consumers have a fair-use right to make backup copies of DVDs they purchase.

Are the Hollywood studios saying "thanks, job well done"? Mmmm, well not exactly: MPAA had no comments on 321 Studios and DVD X Copy. But said that people behind products that circumvent a DVD's scrambling technology "are exposing themselves to criminal prosecution" under the DMCA."

You don't need two DVD drives for this. The program decodes and writes the files to a temporary folder on your hard drive (you need about 9.5 GB space) and then burns the DVD.

During the copying process, 321 Studios takes three extra steps to appease the Hollywood critics. DVD X Copy inserts electronic controls into copied DVDs to prevent them from being duplicated further. It embeds a digital watermark that can trace the source of any file transmitted over the Internet to the software's licensed owner. And it inserts a disclaimer at the beginning of the recorded DVD, telling viewers that the disc is a backup copy intended for personal use only.

MPAA has taken this issue to court and has sued 321 Studios. This will be an important case on determining the legality of DMCA. This is a difficult area to decide, balancing the needs of a studio to secure a profit for what they provide to the marketplace with the right of "fair use" once a consumer buys a copy of a particular media for their private use.

In a related court ruling on DMCA, on December 17, 2002, ElcomSoft was absolved on all counts . The firm faced four charges of violating the DMCA by selling a product it developed called Adobe EBook Processor. That software allowed users to disable security settings on Adobe Systems' e-book files so they could be printed, shared, and viewed on various computing devices. It was also cleared of a fifth charge for conspiring to sell the product.

To see an article in PCWorld.Com on this go to:

<http://www.pcworld.com/news/article/0,aid,107637,00.asp>



**Subject: NAB2003 to be In ONE LOCATION**

By Larry Bloomfield



Having covered NAB for the past several years for both Broadcast Engineering and the Tech-Notes, the news that everything will be in one location this year comes as a welcomed relief. I'm sure I'm not alone. The trek between the Sands Convention Center and the main Las Vegas Convention Center (LVCC) was a total waist of time for all concerned. It was understandable a few years back when the exhibit space was insufficient at LVCC, but that was not the case last year.

The addition of the new South Hall's 918,000 gross square feet of exhibit space at the LVCC, finished two years ago, will now permit both sessions and exhibits previously held at the Sands Expo and Convention Center to move to the LVCC. NAB says the exhibit areas moving to the LVCC are Satellite, Internet and TV/Video/Film in addition to the Digital Video Production Workshop, Digital Cinema and multimedia sessions.

I'd sure like to know how much NAB paid for the research they say they did that showed over two-thirds of attendees would prefer to have all events located in one facility. I'd even bet the percentage was much higher. I know that most of us could have save them the money. For those who were not exposed to this situation, attendees had to spend time – wasted – standing in bus lines, can now spend that time on the exhibit floor or in sessions.

The Las Vegas Hilton, accessible by a pedestrian skybridge from the LVCC, will still be the location of the keynotes, luncheons, special events and the RTNDA exhibits and sessions.

This should make life a lot easier on everyone. And, in case you've forgotten, NAB2003 is April 5 - 10.



**Subject: Broadcasting's Lott**

From: John Willkie [johnwillkie@hotmail.com](mailto:johnwillkie@hotmail.com)



Now that Trent Lott has finally done the right thing and stepped down as Senate Majority Leader because he was called to task for a throw away line that I heard him use several times over the past twenty years, it is a good time to ponder what this will mean for the DTV transition?

What did Trent Lott have to do with the transition? Well, he was the



(pro) Republican floor manager of the legislation that created the channel loan and the other aspects of the DTV transition.

Also, it needs to be noted that (during his openly racist college days) Trent Lott had, as his college roommate of four years, Eddie Fritts, head of the NAB. Indeed, if contemporary news reports are to be believed, Eddie Fritts got (as opposed to kept) his job in no small measure because of his closeness to Lott in the mid 1980's, when Republicans controlled the Senate and White House.

With John McCain, a clear critic of the legislative deal, expected to head the Senate committee, and with a new majority leader who wasn't even in office when the legislation was enacted, the broadcast industry appears to have lost its senate "rabbi" or protector, there would appear to be room for maneuvering with the transition, at least on the legislative front.

I can't predict the future, but I suspect that this next congress will address the transition (remember, its all about the money) in a more assertive manner than the last two Congresses. When Congress is in session, nobody's bank accounts (or ham sandwiches) are safe.



**Subject: Unions blast FCC's studies on media-ownership rules**

By: Fred Lawrence

A group of powerful media unions issued a scathing critique of a dozen FCC studies the commission is using as a basis for its review of a series of media-ownership restrictions. Last year, the FCC commissioned a set of studies to provide information and insight on issues raised by increased media concentration. These studies generally have been interpreted -- by some at the FCC and others in the industry -- as supporting the view that growing media concentration does not affect diversity and access to information and opinion. Disagreeing with this premise, AFTRA, WGA East, the Newspaper Guild-Communications Workers of America and the AFL-CIO's Department for Professional Employees sponsored the analysis by Dean Baker, co-director of the Center for Economic and Policy Research.



**Subject: Protecting Mickey Mouse at Art's Expense**

By Fred Lawrence



Copyright is an issue that has plagued and seems to be delaying the transition to digital TV. Related issues should be of interest.

According to Stanford Law School professor, Lawrence Lessig, "The Supreme Court decided this week that the Constitution grants Congress an essentially unreviewable discretion to set the lengths of copyright protections however long it wants, and even to extend them." Lessig made this statement in an article he wrote that appeared in the New York Times on Saturday, January 18<sup>th</sup>.

Lessig went on to draw a comparison between copyright and patents. He went on to say: "Patent holders have to pay a fee every few years to maintain their patents. The same principle could be applied to copyright." For the complete story, visit: <http://www.nytimes.com/2003/01/18/opinion/18LESS.html>



**Subject: There will be rules!**

By: Larry Bloomfield

According to an article that appeared recently in Broadcasting & Cable by John Eggerton, Eggerton reports: "Clearly unhappy with reports suggesting that he is preparing to unleash a media Cyclops on the land, Federal Communications Commission chairman Michael Powell tried to set the record straight..." during an informal media-ownership hearing at Columbia University in New York.



During his speech, Powell pointed to Congress, which, he said forced, the commission to review the rules every two years -- a process he called "somewhat regrettable" and "destabilizing" -- and the courts, which ruled that the FCC had to either produce evidence for the rules or scrap them.

Rather than a seminal, one-time event, he said, the ownership review is something that will have to be repeated "over and over and over."

For the complete story, visit:

[http://www.broadcastingcable.com/index.asp?layout=story&doc\\_id=111422&display=breakingNews](http://www.broadcastingcable.com/index.asp?layout=story&doc_id=111422&display=breakingNews)



**Subject: Biennial Ownership Reports Due In 2003 For Broadcasters**

By: Jim Mendrala



Each commercial and noncommercial radio and television broadcast station licensees must update its ownership reports in 2003. The reports are due on the anniversary date of a station's renewal application filing date. The reports must be filed electronically, unless the Commission grants the licensee a waiver from this requirement. Ownership reports for stations located in the States of Arkansas, Kansas, Louisiana, Mississippi, Nebraska, New Jersey and

Oklahoma are due by February 3, 2003. The remaining ownership reports will be due at two-month intervals through the remainder of 2003.

For more information, go to: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-03-137A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-03-137A1.pdf)



**Subject: CBS could become subscription network**

By: Fred Lawrence

According to Broadcast Engineering's new e-newsletter, Beyond The Headlines (which Tech-Notes publisher, Larry Bloomfield, wrote for over five years in BE's "real" magazine), in an article written by Michael Grotecelli, it is reported that things are in a possible state of change at the "Tiffany Network." This time the Viacom CEO Mel Karmazin was the one dropping the bombshell.



So when Karmazin told a media conference in New York City that CBS could become a pay network if personal video recorder (PVR) devices like TiVo catch on and significant numbers of viewers start zapping commercials, it came as an eye-opener.

"We give you all this great content for free, and all we ask is for you to watch our commercials. If the time comes when you don't watch our commercials, then we will have to make our money some other way," Karmazin said.

Karmazin also spoke of a possible science fiction cable channel, bargain acquisitions for Viacom and made comments about asking regulators to allow "triopolies," the ability to own three TV stations in a single market..

For the complete story, visit:

<http://www.industryclick.com/microsites/index.asp?srid=11266&pageid=5948&siteid=15&magazineid=158&srtype=1#flag> and other information at <http://www.viacom.com>.



**Subject: SMPTE Elects New Officers**

By: Larry Bloomfield



According to information received recently from SMPTE Headquarters, there's a new slate of officers to serve a two year term – 2003 to 2004.

- President, Gavin W. Schutz of Ascent Media Group,
- Executive Vice-President, René Villeneuve of Videotron,
- Editorial Vice-President, Edward P. Hobson of National TeleConsultants
- Secretary/Treasurer, Kenneth C. Fuller of Fox Digital.

The following were elected governors:

- Canadian Region: Harvey Rogers, Alliance Atlantis Broadcasting
- Central Region: W. Wallace Murray, SBC-Ameritech
- Eastern Region: Vacant
- Hollywood Region: Alan J. Masson, Eastman Kodak Company and Alan A. Hart, ModernVideoFilm
- New York Region: Kenneth R. Hunold, Dolby Laboratories, Inc.
- Southern Region: John R. Schilberg, Broadcast Digital Systems
- Western Region: Peter Ludé, iBlast, Inc. and R. Kilroy Hughes, Microsoft Corp
- Asia/Australia Region: Vacant

Europe, Middle East, Africa, And Central & South America Region: Lawrence R. Read, Hyperactive



**Subject: Digital Projectors and Hi-Speed Movie Distribution**

By: Larry Bloomfield



If everything goes according to a Los Angeles Times story by P. J. Huffstutter, Regal Entertainment Corp., one of the nation's largest movie theater chains, they plan to retrofit nearly 80% of their locations (4,500) by the end of next year with digital projectors, high-speed data networking equipment and satellite links at an initial tune of \$70 million.

One of the biggest roadblocks has been determining who will pay the \$150,000 cost for each digital projector, along with the more than \$20,000 per screen for the computer that stores and feeds the movies, but despite these costs, embracing technology is key to the strategy of Regal's new owner, Colorado-based billionaire Philip F. Anschutz.

The founder and former chairman of Qwest Communications International Inc. created Regal Entertainment by merging Regal Cinemas Corp., United Artists and Edwards, all of which he acquired this past year through bankruptcy reorganizations amid an industry-wide slump.

Storage will be in a central video server and Regal will distribution via high speed data lines that will connect the server to each projector through an elaborate automation system not unlike those used for television stations.

Some of the equipment will be supplied by Cypress, CA-based Christie Digital Systems Inc. Hewlett Packard won the Client/Server Shootout for the Big Screens. As part of the system, digital plasma screens will be installed in the lobbies of Regal theaters.

Last October, Regal CineMedia signed a deal with NBC that calls for the network to create all-digital short programs that will run before feature films. Some of the expense of this move is hoped to be defrayed by advertising revenue. Just think, you can not go to the theatre, pay \$5 to \$10 to see adds you can stay at home and see for free on television.

The seven major movie studios created the Digital Cinema Initiatives in March of last year to establish technology standards and build a business model that will make it profitable to distribute digital films electronically to the more than 100,000 theaters around the world. There are plans to test this new technology throughout 2003.

For the complete story, visit: <http://www.latimes.com/business/la-fi-theaters4dec04001437.story> (free subscription required)

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### Letters to the Editor

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Some of your Tech-Note readers may be interested to learn that we are publishing an online newsletter for the community television industry--Class A and low power TV stations.

Three issues are now out. To view them, go to [www.thelptvstore.com](http://www.thelptvstore.com) and click on the link to CTB Online at the left side of the page.

We published CTB in print form from 1994 until this September. From 1986-1992 we published The LPTV Report, with which some of your Tech-Note readers may be familiar.

We're working on the January issue now, so send us your news!

e-mail: [kompasgroup@toast.net](mailto:kompasgroup@toast.net) fax: (262) 781-5313. And there's always the phone, (262) 781-0188. Or snail mail:

The Kompas Group  
P.O. Box 250813  
Milwaukee, WI 53225

John and I wish you very happy and peaceful holidays! --- Jackie



RE: Tech-Notes #112

Just a suggestion: place <http://> in front of your URL so all we have to do is click from within the message instead of cut and paste into a browser.

Dave Knight, Assoc. Dir. Technology Development

(Editor's Note: Will try to remember to do this.)



RE: Tech-Notes #112

I see you have also let the error go through from the press release.

In your article you quote Katsuji Ebisawa saying "The resolution is three or four times the resolution of 75mm [75-millimeter] film".....

First no one makes 75mm film. Yes there is 65mm camera negative film and 70mm print stock. What Mr. Ebisawa probably said was that Ultra HD is three or four times the resolution of standard HDTV making it equivalent to 35mm film.

A Reader

(Editor's Note: We stand corrected.)



Re: Tech-Notes #112

"The resolution is three or four times the resolution of 75mm [75-millimeter] film," said... This is such a hoot. It's comparing TV to a film format that doesn't exist.



Probably the 65/70 system is what this person was thinking of, but has he seen it in theatrical projection?

J.S.



Re: Tech-Notes #112

For the most part, I believe that content originators should be protected. However, I have begun to learn a little more about fair use and with the extension of laws that keep old content out of public domain; I have come to the conclusion that most of corporate America wants to simply screw everyone else and the easy ones twice. No one is going to stand up for Joe Consumer until he gets really angry and makes his presence known.

Bill Burckhard [billb@khmt.com](mailto:billb@khmt.com)



#### On the Passing of David A. Hill

Thank you for the notice about Dave Hill. I met Dave when I was working for KHON in Honolulu in the early 80's and he and I have stayed friends ever since. You are so correct about his positive spirit. In good times and bad it was always a joy to spend time with Dave because of his outlook. With Dave, not only was the glass half full but there was plenty more to go around. I know I'll miss him.

Bill Hayes Iowa Public Television  
+++++

I'm very sorry to hear about David Hill. I think that I met him many years ago at a show in the Bay Area. The name is certainly familiar. Another person who died this past year, and who should be remembered (I worked with him at a number of companies) is Bill Glenn. I met Bill when he was working for Quantel as a Field Service Engineer. Then we both worked as training instructors for Abekas. When he died this past May of Leukemia, he was working for Sony.

I hope you are well, and that you and your family have a wonderful Holiday and Happy New Year. Thanks for all of your camaraderie and good work!

Very Best Regards -- Jim Miller [jlmiller55@attbi.com](mailto:jlmiller55@attbi.com)  
+++++

I feel sorry about the bad news of Dave but I think he is now together with God and I hope he is gonna take good care of us in whatever place he is in right now. To you Larry

I hope you are gonna enjoy this Holiday Together with your family and the rest of your friends.

Your Friend, Noel Santos

(Editors Note: These are just three of the many responses we got regarding Dave Hill)



I worked for Tom at KCAL. He was loved by some, loathed by others, but he did know his stuff.

Rachel Ehrenberg -- KTLA-TV Los Angeles, CA USA



Subject: **Some of My Observations**

By: Burt I. Weiner [biwa@earthlink.net](mailto:biwa@earthlink.net)



There's a lot of press about both digital radio and television today. I know they are both good, but it seems to me like we need a reminder. We need to remember that there's nothing wrong with analog. The problem is traced to what we have done to the analog signal. All signals have certain requirements and their unique limitations. I've heard digital AM and was quite impressed.

I've also heard good analog and been even more impressed. It seems to me that a lot of the thinking is: Analog bad, digital good. Too many people tend to jump on the digital bandwagon just because something is digital or microprocessor controlled.

What do you think?

Burt Weiner



**Subject: Entering Into DTV**

By: Jim Mendrala

There seems to be a lot of interest in HDTV Big Screen TVs these days. HDTV “Ready” sets are being displayed and are being sold to many new customers. This is all good for sales but when the customer asks the question of DTV the usual answer is to get an HDTV receiver. The salesman then introduces the customer to an HDTV satellite receiver. The majority of the satellite receivers shown today are for the DirecTV service with only a few stores for the Dish Network. No mention is made that most of these receivers can also receive over the air (OTA) or terrestrial DTV transmissions.



I have visited several of the big chain electronic stores in the past several days and it is obvious that the consumers and salesmen are not knowledgeable about DTV.

When I asked the question “I have an HDTV ready set and would like to watch some of the HDTV channels that are on the air now so what do I need to receive OTA HDTV signals?” The typical answer is: “The broadcasters do not transmit HDTV. You have to subscribe to the digital cable or satellite.”

Now you and I know that the DTV broadcaster are transmitting a lot of content these days in HDTV or are up converting SDTV to HDTV. So the next question I asked was: “What about the DTV stations that are presently on the air now?” Typical answers are “There isn’t any HDTV stations on the air” to “Oh yes, there are some digital broadcasting stations on the air but they haven’t standardized what format they will broadcast in yet.”

Next I ask “Can I buy an HDTV receiver for off the air (OTA) reception now?” The answer most of the time is “No you must buy an HDTV satellite receiver and sign up for at least a years worth of satellite service then after a year you can do what you want.” Some have a DTV OTA only receiver that is generally slightly more expensive so I ask them, “Then why do the HDTV satellite receivers cost less than the terrestrial or OTA receivers?” The answer generally is “I don’t know?” None of the expert salesman pointed out that with most HDTV satellite receivers you can actually receive the off the air DTV signals if available in your area. When asked most salesmen didn’t even know what OTA or terrestrial meant. When this was explained to the salesman the usual reply was you need a special digital antenna to receive DTV. Some stores had the equivalent of set top UHF rabbit ears for sale at prices as low as \$9.95 and up. When asked about using the antenna that I already have to receive the DTV stations most said they didn’t think it would work as it had to be digital a digital antenna.

What needs to be done somehow is for the broadcaster to indicate that they are broadcasting over their old analog channel as XXXX-TV and also on their new digital channel XXXX-DT. This would make the viewer aware that there is more than one source to receive the programs the station is transmitting. To super a message that "This program is being televised in HDTV" does not help the consumer understand that in order to receive it in HDTV he would have to have a DTV HDTV receiver as well as an HDTV monitor, HDTV ready set or an HDTV set. Most consumers that I asked were not aware that there were digital television broadcasts stations on the air now.

The stores should also cooperate in providing some various off the air signals such as analog and digital as well as the DVD to show how the various HDTV "Ready" sets up convert to the native display. It is amazing how different HDTV sets look when up converting the various forms of video such as VHS, S-VHS, MiniDV and analog NTSC. Some of the big brand names were inferior to some of the lesser known brand in this regard.

Further help from the stores would be in to having a sign identifying what technology for the display is being used. Is it CRT, LCD, LCOS, DLP etc.? A sign stating the native display as opposed to what the display will handle would be helpful also. An 800 x 600 display sure can display a 1920 x 1080 image but it won't look as good as a 1280 x 720 display displaying the same 1920 x 1080 image.

I have talked to a few owners of HDTV ready sets and found out that they are watching the built in analog tuners and thought that they were already looking at HDTV and could not see any difference in picture quality. They also said that they bought the set and it was installed upon delivery and they haven't touched it since. Some have not even read the user manual that comes with the set.

At a Radio Shack store who sells both DirecTV and Dish Network systems I asked: "What HDTV receiver does Dish Network have that can receive the HDTV that Dish has to offer and will it receive OTA signals as well?" The counter person had to ask his manager who said that the only HDTV receiver they had available had to be special ordered. I asked: "What kind of a receiver is it? Who makes it? What are the specifications?" The guy made a few phone calls to Radio Shack Corporate who didn't know the answers either. Finally the counter person had someone on the line who said it was a model 6000 receiver and could receive all of Dish Networks HDTV offerings. I was then put on the line so that whoever it was on the line could answer any technical questions I might have. Turns out it was a person from Dish Network. I asked him if the 6000 was an EchoStar, RCA, Samsung, or other manufacturer's receiver. He didn't know but thought it was a Dish receiver. When asked if it could receive HDTV signals OTA he had to ask his supervisor. When he came back on the line he said it could only if there was an HDTV station in the area. Regular TV stations don't transmit HDTV. I said what

about DTV transmitters? His answer was he didn't know. I asked him: "How can I get HDTV from the networks such as ABC, NBC and PBS as an example." He said that

"Dish only carries CBSHD, Discovery HDTV Theatre, HBO and Showtime as well as Dish's HDTV Demo channel but in the future there will be more HDTV channels if people call in and ask for them. Now some of his answers were okay but it was obvious that to get any technical information was just about next to impossible. To buy an HDTV OTA/DBS satellite receiver one must purchase a year's subscription to the satellite network even though at this time one probably would be able to get more HDTV from the OTA signals.

HDTV receivers are not cheap. They run from about \$450 to close to \$1,000 dollars. Nobody seems to know how good they are as to picture quality. Some have 480i composite and S-Video outputs as well as the Y, P<sub>b</sub> and P<sub>y</sub> outputs. A few have RGB or RGBHV outputs. A few will only work with the older type HDTV sets. Some have only two channel stereo outputs; some have optical outputs that can be plugged into a Dolby 5.1 channel decoder.

A consumer today really has to do his or her homework because the salespersons can't seem to answer these technical questions. Their usual come back is "take it home, try it out and if you don't like it we will give you a full refund". They don't consider the hassle of lugging it back to the store in its original wrappings.

For the average consumer this seems to be way beyond their capability when all they are familiar with is NTSC and the VHS VCR.

It would seem to me that the broadcaster would be more interested in capturing his audience with some on air education and promotion of their DTV transmissions. Face it DTV does look better when properly installed. When viewing a DTV signal down converted from an HDTV image the picture looks quite a bit better even when viewing it in 480i on a standard old fashion NTSC screen. SDTV also looks better even when up converted by the DTV broadcaster to an HDTV image than a demodulated NTSC OTA signal with its 4.2 MHz bandwidth. DTV is the TV of the 21<sup>st</sup> century. The old NTSC analog channels of the 20<sup>th</sup> century will disappear in the near future, but not because of government rulings or mandates but because DTV is better and the broadcaster can make it a difference. Cable and satellite companies will continue to improve but the broadcaster can now take the lead because his product is the quality of his image. The cable and satellite companies are presently selling quantity not quality of images.

The Consumer Electronic Show in Las Vegas has a lot of new devices which will tend to confuse the consumer more but these new items are only the tip of the digital revolution. HDTV PVR are starting to pop up as well as D-VHS VCRs that are capable of playing and recording HDTV, S-VHS and VHS tapes. The new PVRs are also capable of burning DVDs from 280 GB hard drives. Techies are willing to be pioneers but consumers want

basically simple solutions to their viewing needs. At this time DTV needs to educate the future consumers of this new direction in television.



Subject: **My personal ramblings...**

From: Mark A. Aitken, Director, Advanced Technology, Sinclair Broadcast Group  
[maitken@sbgnet.com](mailto:maitken@sbgnet.com)

We continue to move closer to being as far away as possible from having a complete digital solution for broadcasting. To pick up on an analogy I used earlier...

The game underway has players of all ranks and caliber. The players lined up ALL have one thing in common...they want to be in the game for the BIG pot. No one knows exactly what the pot contains, but they all believe that whatever is in it they have to have. What drives the hunger and thirst to carry on with the quest for a place at the table are the promises that what is in the pot is EXACTLY the very thing you need for your survival.

The headlines from the last week alone make very clear the game is underway:

- CableWorld: The Time Is Ripe For a Turn
- Instat: Digital Terrestrial Television Revolution Put on Hold
- Multichannel: Ferree Seeking Probe of Press Leak
- CableWorld: TV Execs Hold Secret DTV Meet
- EE Times: FCC's copy-protection proposal draws industry fire
- TVTechnology: CBS Will Pull HD Without Broadcast Flag

....and the headlines go on...

So, I ask: "what will be the straw that breaks the back of the present DTV direction? What will be the event(s) that signal "HALT" to the road that we are traveling down? We all saw the "Under Construction" signs that marked the entrance to the road we are on, but did we really expect to find out that some folks thought "Under Construction" is the same as "I don't know where to go and how"? Did we expect to come to the end of construction only to find that there is no construction foreman?...no construction plan?...no notion of what direction to head?

Think about it. Discuss it. Conspire.

After you answer the above, ask this last question? Is there a business to be had, and what is it?

Mark A. Aitken

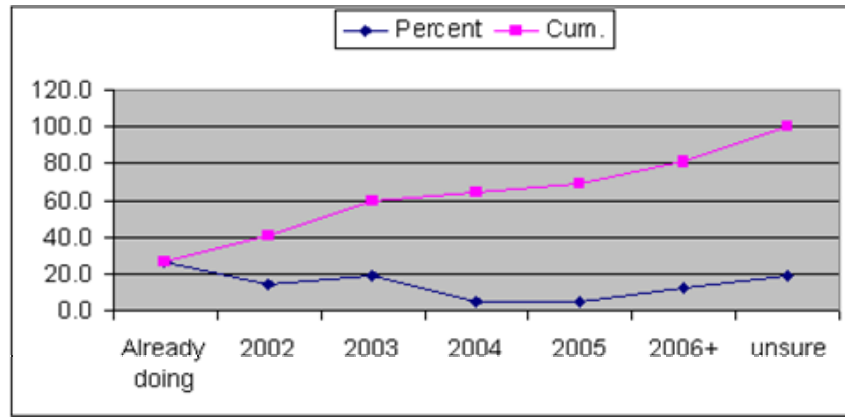




Subject: **By when TV Stations expect to be simulcasting 50 percent of their NTSC schedule in DTV**

From: Des Chaskelson, SCRI ([des\\_chas@scri.com](mailto:des_chas@scri.com))

Data from SCRI's DTV Migration survey shows that the steady increase from 26.2 percent to 81.0 over the next four years is reasonable. The numbers for the final year of the transition might hint that much of the




programming will be in digital by then and the reverse trend of converting the DTV program material to NTSC might be the case.

<b>Simulcasting 50 percent of NTSC schedule in DTV</b>	<b>Percent</b>	<b>Cum.</b>
Already doing	26.2	26.2
<b>2002</b>	14.3	40.5
<b>2003</b>	19.0	59.5
<b>2004</b>	4.8	64.3
<b>2005</b>	4.8	69.0
<b>2006+</b>	11.9	81.0
<b>unsure</b>	19.0	100.0

SCRI is pleased to announce the publication of two new 2003 reports ([http://www.scri.com/sc\\_reprt.html](http://www.scri.com/sc_reprt.html)):

 [2003 - 2005 Digital Cinema Marketplace Report](#)

 [2003 - 2004 Broadcast / Pro Video Global Trends Report](#)

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## Parting Shots



By Larry Bloomfield

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I normally write Parting Shots after I've seen how much has to go into the Tech-Notes. Wow! We've got a lot this time, so I'll be brief and make the same promise that I always make: we'll publish more often so there is less volume. That should be our New Year's resolution. We'll see.

We've decided to do the Road Show again after NAB 2003. As you know from last year and the website, we do this so that there is at least some of the new technology from NAB getting out to the grassroots engineers that don't make it to the big one in the desert.

Since my income is probably a fraction of what many of you make, we need folks to underwrite efforts such as these. Tech-Notes has no income and does not make any money. It is a work of love – it always has been, so when we do things like the Taste of NAB Road Show, we need all the help we can get, financially and logistically – both nationally and locally.

So far, five of the ten underwriters from our first effort this past year have said they'll go with us again this year. That's great! If there is anyone else out there that would like to join us and ensure their technology is delivered to thirty or more venues, let us know. (Last year we went to thirty-one.) Please let us know soon so we can plan to include you in our trip. We can not accommodate more than ten underwriters: there's just not enough room in our van.

The deciding factors to do it again were many. First, we got a lot of good support at the more successful venues. I'd give us a seven-five percent or more score overall. We made mistakes and even canceled Orland, FL and Chicago. That would have made it thirty-three venues, but it was just not meant to be in those locations last year. Who knows what will happen this year?

We learned a lot -- the more successful venues were those where we did the Road Show in conjunction with the local SBE and/or SMPTE Chapter/Section and we learned never to do a show on a Friday. If you'd like us to visit your area, work with your Chapter and/or Section; let us know as we're putting our schedule together now.

We'll leave our home/offices here in Florence, OR on April 22<sup>nd</sup> and will travel south through California, then head east along the southern part of the country. We'll head up the east coast, after Florida, and plan to be in New England sometime in early to the mid part of June. We'll then begin heading west across the northern part of the country. This whole time, we'll jog up-into or down-into the heartland venues from which ever route is closest. We hope to finish sometime in July.

It will not always be possible for us to hold the Road Show on the same days you normally hold your local meetings, so we need your flexibility to be able to keep the Road Show schedule within reasonable limits. We have no problem holding the Road Show in conjunction with other local activities, so long as we can expose the most engineers to the technology we'll be bringing with us. Please keep in mind: this is an educational effort, not a sales shot.

We'll be adding a new wrinkle to the Road Show this year: We'll be meeting with the SURVIVORS of the broadcast industry, our dear fellow members of the **Order of the Iron Test Pattern**, as we across the country. That, within itself, should be a lot of fun and we're looking forward to it.

We're starting to create the new pages for the website, but they won't be up for another week or two, so please contact us so we can include you in this effort.

Tech-Notes – Road Show  
1980 25<sup>th</sup> St.  
Florence, OR 97439-9717  
(541) 902-2424 Office  
(541) 503-217-0712 Fax  
E-Mail: [Info@Tech-Notes.TV](mailto:Info@Tech-Notes.TV)

One final thing: last month, FCC the asked for comments on the possibility of permitting unlicensed transmitters to operate in additional frequency bands: specifically, it is looking into feasibility of allowing unlicensed devices to operate in the TV broadcast spectrum, among other things. Well here we go again!

It is also looking into the feasibility of permitting unlicensed devices to operate in other bands and at power levels higher than other unlicensed transmitters. They say that advances in computer technology make it possible to design equipment that could monitor the spectrum to detect frequencies already in use, and ensure that transmissions only occur on open frequencies. Are we ready for this?

Now, Let's go to press!  
Larry

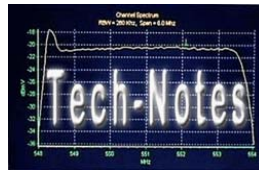


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